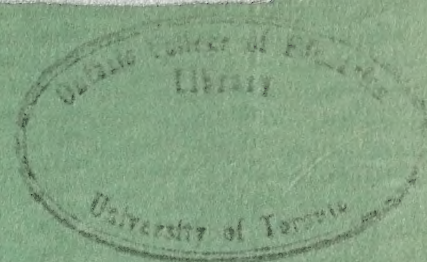


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THE DOMINION BUREAU OF STATISTICS

ONTARIO
TRAINING COLLEGE
FOR
TECHNICAL TEACHERS

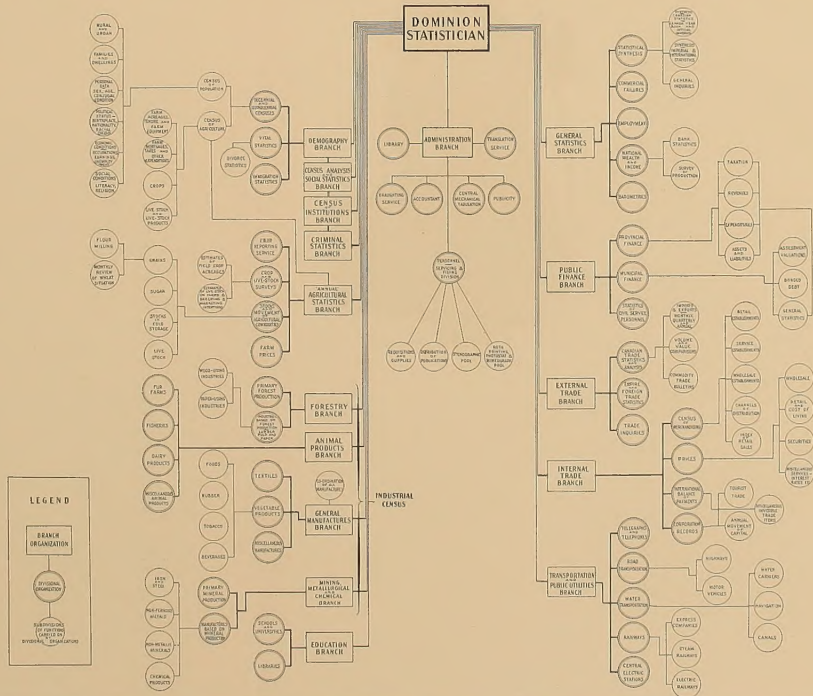


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ORGANIZATION CHART
OF THE
DOMINION BUREAU OF STATISTICS

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The
DOMINION
BUREAU
OF
STATISTICS



ONTARIO
TRAINING COLLEGE
FOR
TECHNICAL TEACHERS


Its Origin
Constitution and Organization

Published by Authority of the Hon. R. B. Hanson K.C.
Minister of Trade and Commerce

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Foreword

HE present booklet, briefly descriptive of the work and purpose of the Dominion Bureau of Statistics, is issued on the occasion of the meeting in Ottawa of the Second Conference of Statisticians of the British Commonwealth, September, 1935, the first Conference of this nature having taken place in London in 1920.

On the completion of the first year of operation of the Bureau a report in more detail than the present was issued, by way of defining the organization effected and the place of statistics in administration. Much progress has been achieved since that date—now more than sixteen years ago. In wishing success to the Conference, however, it may be permitted to quote the following from the Foreword of the earlier report, the pertinence of which is even greater to-day than it was at that time.

The statistics of a nation are, in point of fact, the quantitative expression of the characteristics and activities of the people, and hence are of the most profound significance . . . they have long since passed the stage of being ancillary to administration in the narrow sense and are a scheme of organization in themselves, framed with the broadest purposes in view.

If this be true of the individual nation, it would appear equally true of that heterogeneous yet firmly welded group known as the British Commonwealth. Anything, therefore, that can be done by discussion to co-ordinate our statistics, and thereby facilitate the interpretation of our mutual problems, may well be regarded not only as a further link of understanding within the Commonwealth and as still another of those bonds which so effectively unite its several parts, but as a step towards that wider international agreement in such matters which all have in mind.

R. B. HANSON,
Minister of Trade and Commerce.

OTTAWA, September 1, 1935.



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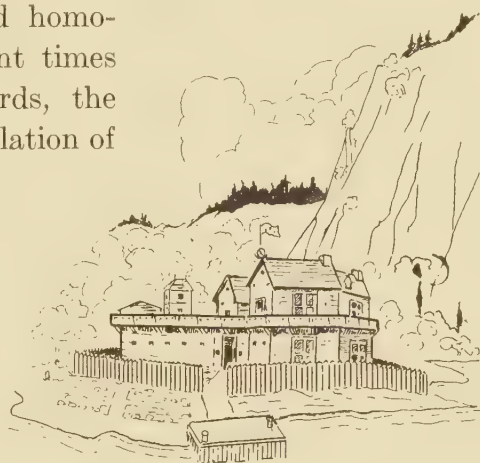
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PART I

THE DEVELOPMENT OF CANADIAN STATISTICS

Canadian Statistics in the French Regime.—Canadian statistics began at a very early date in the history of Canada. This is due in some degree to the fact that the colony was, in its beginning, very small and homogeneous. Thus it has been possible in subsequent times to compile, mainly from the ecclesiastical records, the vital statistics of the French Roman Catholic population of what is now the province of Quebec back to the year 1608, when Quebec was founded by Champlain. These figures were obtained from the writings of Champlain and Sagard for the years 1608 to 1621, and thereafter from the parochial records, and were published at pages 160 to 265 of Volume V of the Census of Canada, 1871. Naturally enough, in the earliest days of the colony deaths exceeded births, but by 1638,



Champlain's "Abitation", Quebec, 1608



Jean Talon, 1625-1691

after the age and sex distribution of the small population became more normal, the births in each year exceeded the deaths, and the population increased with relatively great rapidity by natural increase as well as by immigration. Indeed, the French Canadian population has always been remarkable for its high rate of natural increase.

While the above-mentioned statistics were compiled long after the date to which they related, current Canadian statistics began in the days of the *roi-soleil*, when Louis XIV, after taking over the government of the colony from the Company of One Hundred Associates, desired to know what progress had been made and how many people the colony contained after more than half a century of existence. Consequently his indefatigable Intendant, Jean Talon, took the first systematic census of

Canada
1666

1666

Nommer et surnommer d'ages, qualitez et mestiers
de tous les personnes qui sont d'entre la haute &
Basse Ville de Quebec & compris la grande allée
Dernierement



<p>Notaire du Seminaire de Quebec Et Louis Domestique</p>	
Messire Francois de Laroc.	Esque de g' h' r. Nommé par le Roy premier de la page de ce page
Monsieur de Berniere	grand vicaire, vicaire du f Seminare /
Monsieur de Charny	autre grand vicaire
Monsieur de Maisonne	prebtre
Monsieur. du d'oye	prebtre
Monsieur. promier	prebtre
Monsieur Morin	prebtre
Monsieur Morin	prebtre
Monsieur. Jollie	chey de Lylyze

The above is a reproduction of part of the first sheet of the Census of 1666 (From Can. Arch. Series G. 1, Vol. 460-1).

Cap Rouge et Cote de St Ignace			
Familles	ages	Bestiaux	Terres en valeur
Jean Lemire Indic	41	5	10
Louise marcelle sa femme	27		
4 Enfants			
Jeanne Elizabeth	9		
Marie	7		
Joseph	5		
Anne	3		
Louise	16 mois		
3 Domestiques			
Pierre Guelin	22		
Mathieu Chénault	30		
Jean Gaultier	20		
Jacques Le Guef	21		
Anne Gaultier sa femme	32		
Louise de Boisenvalles	50		
4 Enfants			
Pierre Moncau	17		
Jacques Moncau	12		
Catherine	7 1/2		
Jean	5		
Denis Joseph Ruette et St Daurail			
et de Moncau	50	18	100
un enfant			
François Magdelaine Ruette de			
Moncau	10		
	19		

Reproduction of one of the original sheets of the Census of 1667, taken personally by the Intendant Talon.
(From Can. Arch. Series G. 1, Vol. 460-1 and Corr. Gen. Vol. 2, Fol. 505.)

modern times, securing a record of all persons in the colony by name, with their ages, occupations, conjugal condition and the relationship of each person to the head of the family in which he lived. This census was taken in 1666 on the *de jure* principle, as at a fixed date, and Talon personally carried out a considerable part of the first enumeration, "visiting from door to door all the habitations of Mont Réal, Trois-Rivières, Cap de la Madeleine, and all places above Quebec". A supplementary inquiry dealing with areas under cultivation and numbers of cattle and sheep was made in the following year. This initial census of 1666 was repeated for New France no fewer than thirty-six times during the French regime, while, in addition, nine partial censuses were taken. Further, in the later years of the period ten censuses and nine partial censuses were taken for the peninsula of Acadie or Nova Scotia, and ten complete and six partial censuses of Isle Royale or Cape Breton Island, twenty-one complete and four partial censuses of Newfoundland, four of Saint John River (New Brunswick) and seven of Saint John Island or Prince Edward Island, some of these being taken under British authority. Thus the colonies which now form the Dominion of Canada were well to the fore in respect of the collection of statistics of population, live stock, production, etc., between two and three centuries ago.

Statistics in the Early British Period.—Whatever else may have resulted from the cession of Canada to the British in 1763, there was certainly no improvement in statistics. For a considerable time the Colonial Office was contented with reports from Colonial Governors very much less elaborate than those previously arising out of the census. There was a census of Lower Canada in 1765 and again in 1784 and 1790, but it was not until well into the 19th century that census-taking assumed a more regular form and greater comparability as between the colonies. Upper Canada had an annual census from 1824 to 1842, and in Lower Canada there were censuses in 1825, 1827, 1829, 1831, 1832, 1842 and 1844. Censuses of Nova Scotia and New Brunswick were less frequent than in Ontario or Quebec, and censuses of the Assiniboine and Red River District (Manitoba) were taken in 1814, 1822, yearly from 1831 to 1835, and again in 1838, 1840, 1843, 1846, 1849 and 1856. Most of the provinces, however, conceived the idea of a regular decennial census during the 'forties, the Act providing for the Census of 1851, in what was then Canada, including the following preamble: "Whereas it is expedient that the census of this province should be taken in the year one thousand eight hundred and fifty-two, then in 1861 and thereafter in every tenth year, and that better provision should be made for taking the said census", etc. Under this Act were taken the Canadian Censuses of 1851-2 and 1861. Since Nova Scotia and New Brunswick and Prince Edward Island also took censuses in 1851, we have regular decennial enumerations of

EARLY CENSUSES OF NEW FRANCE AND CANADA

The maps on the reverse side of this insert show the territorial evolution of Canada from a period following the date of the first systematic census down to to-day.

The Census of 1666 was a systematic "nominal" enumeration of the people in the St. Lawrence Colony of New France, taken on the *de jure* principle on a fixed date, showing age, sex, occupation and conjugal and family condition. Still earlier records of settlement at Port Royal (1605) and Quebec (1608) are extant but these, being purely local records, are not censuses in any broad sense. A second census in 1667 included the areas under cultivation and the numbers of sheep and cattle. When it is recalled that in Europe the first census dates only from the eighteenth century (those of France and England from the first year of the nineteenth) and that, in the United States, the census begins only with 1790, the achievement of the primitive St. Lawrence colony, in instituting what is to-day one of the principal instruments of government throughout the civilized world, may call for more than passing appreciation.

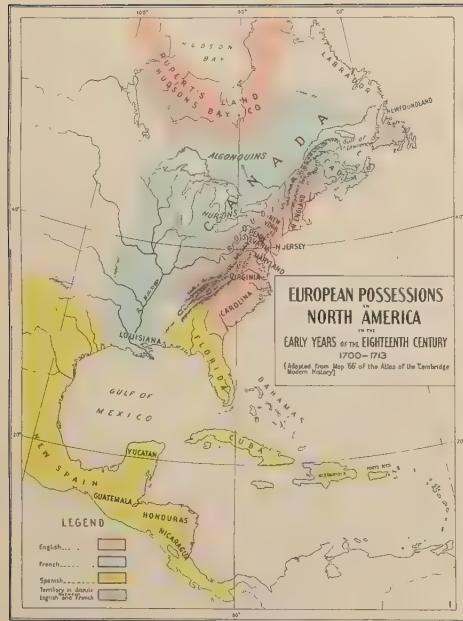
The Census of 1666 (the results occupy 154 pages in manuscript, and are still to be seen in the Archives in Paris, or in a transcript at Ottawa) showed some 3,215 souls. It was repeated at intervals more or less regularly for a hundred years. By 1685 the total had risen to 10,904, including 1,538 Indians settled in villages and living a civilized life under the supervision of the missionaries. By the end of the century it had passed 15,000, and this was doubled in the next twenty-five years. At the time of the cession (1763) the population of New France was nearly 70,000 (69,810 in 1765), whilst another 10,000 French (thinned to these proportions by the expulsion of the Acadians) were scattered through what are now Nova Scotia, New Brunswick and Prince Edward Island. The British population of Nova Scotia was 8,104 in 1762, thirteen years after the foundation of Halifax in 1749.

Our chief sources of statistics for half a century and more after the cession are the reports—more or less sporadic—of colonial governors, though censuses of the different sections under British rule were taken at irregular intervals. British settlement on a substantial scale in the Gulf provinces and in Ontario dates only from the Loyalist movement which followed the American Revolution, at the end of which, *i.e.*, about the year of the Constitutional Act (1791), the population of Lower Canada was approximately 163,000, whilst the newly constituted province of Upper Canada, under Lieutenant-Governor Simcoe, numbered perhaps 15,000, and the addition of the maritime colonies brought the total to well over 200,000. A decade later Canada began the nineteenth century with a population of probably not less than 250,000 or 260,000. Subsequent censuses gave the populations of the different colonies as follows: Upper Canada (1824) 150,066, (1840) 432,159; Lower Canada (1822) 427,465, (1844) 697,084; New Brunswick (1824) 74,176, (1840) 156,162; Nova Scotia (1817) 81,351, (1838) 202,575; Prince Edward Island (1822) 24,600, (1841) 47,042.

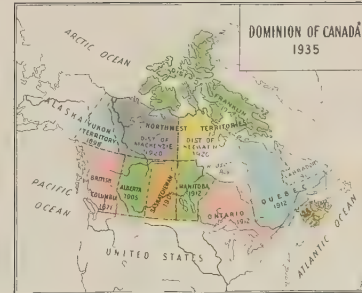
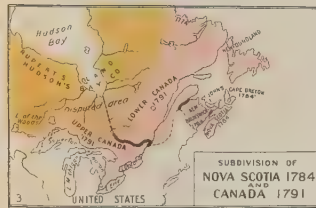
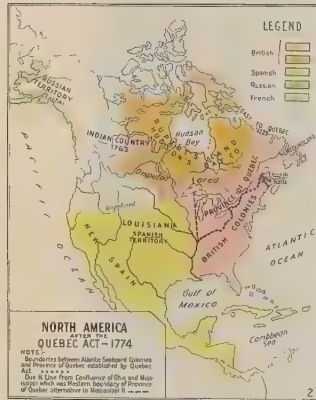
The policy of irregular census-taking was supposed to have been ended after the union of Upper and Lower Canada by an Act, passed on Sept. 18, 1841, which provided for a census in the year 1842 and every fifth year thereafter, but under this Act only the census of Upper Canada was taken and the following year on Dec. 9, the Act was amended, the reason being stated as follows: "Whereas the Census of the inhabitants of Lower Canada, for the year one thousand eight hundred and forty-two as required by an Act of this Legislature . . . hath not been duly taken . . . and whereas it is of the greatest importance that such Census should be taken . . . Be it therefore enacted . . ." The Census of 1844 of Lower Canada was taken under this Act.

Another Act was passed and given Royal Assent on July 28, 1847, creating a "Board of Registration and Statistics" with instructions "to collect statistics and adopt measures for disseminating or publishing the same" and providing for a census to be taken in the year 1848, to be repeated in 1850 and every fifth year thereafter. This Act resulted in the Census of Upper Canada of 1848.

Finally an Act was passed on Aug. 30, 1851, providing for a census to be taken in January, 1852, then in the year 1861 and thereafter every tenth year, and that better provision should be made for taking the census. The first census thereunder was taken in January, 1852, and, as similar censuses were taken by New Brunswick and Nova Scotia, we have a regular measure of population growth in Canada over the past 80 years. The 'fifties saw a very rapid development, especially in Ontario, whilst the 'sixties showed only less substantial gains. In the years following Confederation there was a spurt, the increase between 1871 and 1881 (which included several lean years towards the end) being 635,553, or 17·23 p.c. In neither of the last two decades of the nineteenth century, however, was this record equalled either absolutely or relatively, the gains in each being under 550,000 or 12 p.c. With the end of the century the population of Canada had reached approximately five and a third millions, or twenty times that of 1800. It has increased by another five millions in the past thirty years.



REPRODUCED AND PRINTED AT THE OFFICE OF THE SURVEYOR GENERAL, OTTAWA



* The dates within the Provinces, Territories or Districts indicate the years of their creation as integral parts of the Dominion or the year of boundary adjustment or determination where such adjustment or determination has been made subsequent to entrance into Confederation

the organized population of what became the Dominion of Canada as from that date, and in this sense we might regard the latest census as the ninth decennial census of Canada.

Statistics at Confederation.—Since the Province of Canada was the “pre-dominant partner” in the confederation established in 1867, it was natural that Confederation should involve an extension of the statistical system to what are now the Maritime Provinces, more especially as in the division of functions between the Dominion and the provinces “the census and statistics” was allocated by the British North America Act to the Dominion. In this connection statisticians will recall with gratitude the name of J. C. Taché, a distinguished member of a distinguished French Canadian family, who occupied the post of Secretary of the “Board of Statistics” or Committee of three Ministers under which the Statistical Act of 1848 was administered.* After Confederation, M. Taché acted as Census Commissioner both for the Census of 1871 and for the Second Decennial Census of 1881. As such, he was responsible for bringing together in Volume IV of the Census of 1871 a summary of the results of all the preceding censuses over a period of more than two centuries, and for the compilation of the vital statistics of Quebec already mentioned.

The Development of Statistics after Confederation.—Side by side with the census, other official statistics developed. Exports and imports had, of course, been recorded by the constituent colonies. The monthly bank statement dates from 1856 for the then Province of Canada; at Confederation it was extended to the whole Dominion. There also went on from 1867 a semi-official compilation of the statistics of the country edited by Arthur Harvey, F.S.S., of the Department of Finance, Ottawa, with the assistance of officials in New Brunswick, Nova Scotia and Prince Edward Island. The resultant compilation was first described as “The Year Book and Almanac of British North America for 1867; being an annual register of political and trade statistics, customs tariffs, excise and stamp duties; and public events of interest in Upper and Lower Canada, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and the West Indies”. Subsequently the title was changed to “The Year Book and Almanac of Canada—An Annual Statistical Abstract of the Dominion and a Register of Legislation and of Public Men in British North America”. This compilation, published for each year from 1867 to 1879, brought together, annually, a great deal of the then available statistics of the provinces and later of the Dominion, and is regarded as being the progenitor of the *Official Abstract and Record of Canada*, which, from 1886 on, dealt annually with the institutions, population, finance, trade, and general conditions of the Dominion, and with tariff data for the United Kingdom, British possessions and foreign countries.

*This Act provided for the registration of births and deaths and, as previously stated, for a decennial census of the United Provinces.

The beginning of the *Official Statistical Abstract and Record of Canada* in 1886 was doubtless due in part to the need of a statistical compilation similar to that of the older Year Book, which had not been published for some six or seven years. It was also due to the recognition by the Government of the Dominion of the need of better official statistics. In 1879, an Act respecting Census and Statistics had been passed, providing first for the Decennial Census of 1881, and secondly for the collection, abstraction, tabulation and publication of "vital, agricultural, commercial, criminal and other statistics". Again, in 1885, an Act was passed providing for a census to be taken within the following year in the province of Manitoba, the Northwest Territories and the District of Keewatin, this being the first of the quinquennial censuses of the Prairie Provinces.

Meanwhile other statistics were beginning to come in to the Government as "by-products of administration". Insurance statistics for the Dominion date from the establishment of the Insurance Branch of the Department of Finance in 1875 and were subsequently pushed back to 1869. While the reason for the collection of banking and insurance statistics was obvious enough, as being a protection to the public, other statistics were collected which were more of an informational than of a directly administrative character. Thus the collection of criminal statistics was provided for by Chapter 13 of the Statutes of 1876, requiring schedules of criminal statistics to be filled in and transmitted yearly by certain court functionaries to the Minister of Agriculture on forms furnished by him; as a result, Canada has available to students of such subjects a complete record of convictions for criminal offences extending over a period of nearly sixty years. In the preceding session of the Dominion Parliament, the Railway Statistics Act (C. 25, 38 Vict.) had provided that all railway companies should furnish statements of capital, traffic and working expenditure annually, together with weekly returns of their traffic, the result being that the railway statistics of the Dominion go back as far as 1876 and have proved of great use to the students of the growth of our transportation system. Postal statistics, statistics of merchant shipping, trade statistics, inland revenue statistics and immigration statistics had been collected from the commencement of the Dominion, incidentally to the work of the authorities concerned.

Statistical Progress in the 'Eighties and 'Nineties.—The 1880's were a period of considerable progress. Subsequent to Taché's retirement, George Johnson was appointed Chief Government Statistician in 1887, and devoted himself largely to the improvement of the *Statistical Abstract and Record of Canada*. Through this and other services, Mr. Johnson became internationally known, and was elected an honorary member of the Royal Statistical Society. The 1894 and 1895 editions of the *Statistical Year Book of Canada* would, indeed, challenge comparison

for general informational character with almost any similar works of the period, since Mr. Johnson early grasped the importance of general statistical co-ordination. Mr. Johnson also directed the taking of the third census of the Dominion in 1891.

At the very end of the century, in 1900, the collection of social statistics became a part of the statistical picture in Canada upon the creation of the Dominion Department of Labour, which was to collect and classify statistical and other information relative to the condition of labour. This important information was thereafter published monthly in the *Labour Gazette*. In the same year Mr. Archibald Blue was appointed chief census commissioner for the Dominion, and was thus in charge of the fourth census of the Dominion of 1901. In 1905, when the permanent Census and Statistics Office was created under Chapters 5 and 6 of the Statutes of that year, Mr. Blue became its chief officer. These Statutes also provided for the Quinquennial Census of the Prairie Provinces, 1906, and the Fifth Decennial Census of the Dominion, 1911.

Establishment of the Census and Statistics Office in 1905.—The setting up of a permanent Census and Statistics Office under the Ministry of Agriculture was a landmark in the history of Canadian statistics, since it meant that the experience gained in the taking of one census was preserved for use in the next, instead of being pitched into the discard as had been the case when the census was taken by an *ad hoc* organization. Further, the combination of other statistics with those of the census operated to create a general statistical point of view and to facilitate the later establishment of the Dominion Bureau of Statistics. Section 15 of the Act of 1905 provided that the “office shall collect, abstract and tabulate agricultural, commercial, criminal, educational, manufacturing, vital and other statistics and information from time to time in the intercensal years of each decade in such ways and manner as are found most practicable”. Thus the functions of the Census and Statistics Office were of a fairly general character, while Section 19 provided that special statistical investigations as regards subjects, localities or otherwise might be made by authorization of the Governor in Council. No attempt was made to work with other statistical branches; the latter, in fact, continued to increase in number and scope. The Act of 1905, however, showed that a body of opinion was being created in the country in favour of co-ordinated statistics and constituted the first step toward the establishment of the present organization.

The Departmental Commission of 1912.—Before entirely satisfactory progress could be made, it was essential that the existing official statistics of Canada should be passed in review and a general plan devised. In 1912 the Minister of Trade and Commerce (under whose jurisdiction the Census and Statistics Office had been placed) reported to the Government that while work was being more or less effectively

The Dominion Bureau of Statistics

performed in several departments with regard to external trade, crop reports, railway, canal and labour statistics, wholesale prices of commodities, etc., overlapping of effort and diversity of results were apparent. In particular, "no comprehensive system at present exists for the collection and publication of the statistics of production and distribution of Canadian commodities within the country itself", the provinces in some instances duplicating the work done by Dominion Departments, whereas a system of co-operation and collaboration was highly desirable. The Minister accordingly recommended that a departmental commission should be appointed to inquire into the statistical work now being carried on in the various Departments and report on "a comprehensive system of general statistics adequate to the necessities of the country and in keeping with the demands of the time", also that he be authorized to communicate with the various Provincial Governments with a view to ascertaining "what branches of statistical work are being conducted by the provinces and to what extent these may assist in or duplicate work now being done by the Dominion, looking to a system of co-operation". To this commission were appointed representatives of the Civil Service Commission, the Census and Statistics Office, the Department of Trade and Commerce, the Department of Labour, and the Department of Customs. The report of the commission thus appointed was submitted toward the end of 1912. It substantiated with emphasis the Minister's references to existing conditions, pointing particularly to the "lack of coherence and common purpose in the body of Canadian statistics as a whole". The remedy it recommended was the organization of a central statistical office for the co-ordination, unification, extension and general improvement of statistics. Other recommendations were the taking of a quinquennial census of population and property, the institution of an annual census of production, the co-ordination of the work of the statistical branches of the Departments of Customs and Trade and Commerce, the reorganization of canal statistics involving the creation of statistics of coastal trade, the creation of wages and consumption statistics, improvement in the statistics of insurance, the development of price statistics, and the enlargement of the *Canada Year Book*. In the provincial field the commission recommended the co-ordination of statistics of births, marriages and deaths, public health, education, agriculture, local and municipal governments, industrial accidents, various phases of production, finance, public lands, public works, hospitals and charities. These recommendations have largely constituted the program of the Dominion Bureau of Statistics.

Establishment of the Dominion Bureau of Statistics under the Statistics Act.—The first step in carrying out the report of the commission was taken in 1915 by the creation of the office of Dominion Statistician. To him was assigned the duty of devising, in the light of the recommendations of the commission, a practical



DESCRIPTION OF CENSUS OPERATIONS

Description of Operations.—A highly organized field force of 15,000 enumerators was employed in collecting, by personal inquiry, information regarding every man, woman and child in the Dominion, and a special temporary staff of almost 1,000 clerks (uppermost illustration) was engaged in transcribing and classifying the resulting mass of data.



REVISION ROOM



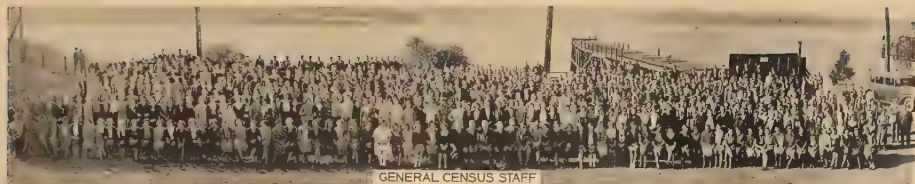
VERIFIER

Other illustrations show clerks engaged in checking information from the enumerators' sheets and depict the process of transferring the checked information to census cards by individually operated punching machines or 'pantographs' in the operation of which the clerks become very quick and skilful. Two types of hand-punching machine are being used. Both are among the illustrations. The smaller one is hand-directed-electrically-operated and is capable of much greater speed. The 'gang puncher' is used for punching one or more items of information common to a large group of cards such as the electoral district, the enumeration area, etc., and checks the total number of cards punched. This machine can punch up to 400 cards per minute. The punched cards are later sorted, cross-analysed and tabulated by machinery. The card verifying machine cross-analyses the cards, and is self-checking; should a card have been punched in error so that an item of information contained thereon is incompatible with other information on the same card, the machine automatically rejects that card, which is then re-examined and corrected. The total numbers of correctly and of incorrectly punched cards are recorded at the end of each run.

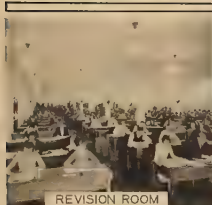
In the centre of the lay-out is shown a battery of sorter-tabulators, each of which takes the cards at the rate of 225 per minute, collects each piece of information from the cards and aggregates the items under their respective headings, posting the results on a "visible index" as fast as the cards are dealt with. A complete photo-mechanically produced record of the result in table form can be made by the camera attachment, shown on the left, at any desired point in the compilation.

After the routine operations of checking and tabulating the information have been completed, the results are taken in hand by the specialist branches of the permanent staff of the Bureau and undergo exhaustive analytical treatment and comparative study from many angles. It is in this way that the full significance of the census is interpreted to the public through special reports published from time to time during the years following the census.

THE SEVENTH DECENNIAL CENSUS OF 1931



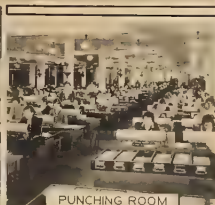
GENERAL CENSUS STAFF



REVISION ROOM



SORTER-TABULATOR



PUNCHING ROOM



VERIFIER



PUNCHING MACHINES



GANG-PUNCHER

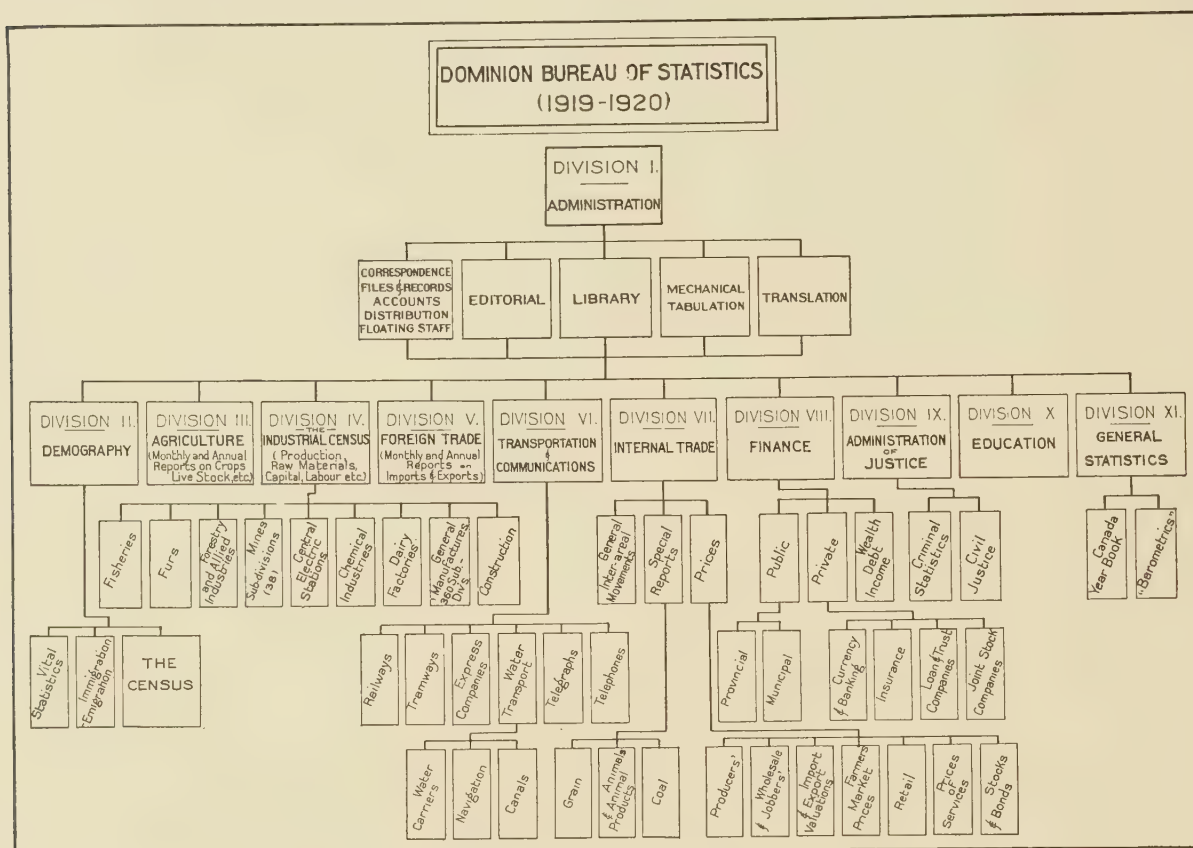
scheme for the organization of a central Canadian statistical office, bringing under direct control all statistics except those which are by-products of departmental administration, supervising these latter in order that they might be made as useful as possible from the general point of view, and establishing a system of co-ordination with Provincial Governments in order that statistics collected by the provinces in the course of administration or otherwise might be rendered capable of inclusion in Dominion totals. Memoranda were drawn up descriptive of the procedure desirable in the various statistical fields, numerous consultations and conferences were held with Dominion and Provincial Departments, and finally in 1918 the Dominion Bureau of Statistics was established to carry on the statistical work of the Dominion along the lines laid down by the Commission of 1912 to the extent that was then thought practicable. In this connection, tribute should be paid to the Hon. Sydney Fisher, Minister of Agriculture, who in setting up the Census and Statistics Office broke important new ground, and to the Rt. Hon. Sir George E. Foster, Minister of Trade and Commerce, who took a keen personal interest in the negotiations which rendered the establishment of the Bureau possible.

The Statistics Act of 1918 is a measure designed to give final form to the statistical policy of Canada, crystallizing the suggestions of the Commission of 1912 and laying down a definite plan for the organization and development of statistics. Structurally, it is a consolidation of previous statistical legislation (the Census Act, the General Statistics Act, the Railway Statistics Act, the Criminal Statistics Act and the statistical sections of other legislation), with additions to render the scheme comprehensive. Specific sections deal with the decennial and the quinquennial censuses of population and agriculture, an annual census of industry, statistics of trade and commerce, transportation statistics, criminal and general statistics. But the most significant section is that creating the Dominion Bureau of Statistics and defining its functions as "to collect, abstract, compile and publish statistical information relative to the commercial, industrial, social, economic and general activities and condition of the people"—a general mandate. The important instruction is added that the Bureau is "to collaborate with all other Departments of the Government in the compilation and publication of statistical records of administration according to the regulations", with a further section on provincial collaboration.

Early Organization of the Dominion Bureau of Statistics.—The Dominion Bureau of Statistics, as it existed in the first year after its establishment, is described in the first Annual Report of the Dominion Statistician, wherein its then organization is shown in the diagram which is reproduced on the following page. The Bureau consisted at the outset of eleven main divisions, of which the first was devoted to General Administration. The actual field of statistics was apportioned among

The Dominion Bureau of Statistics

the other ten divisions as follows: Division II, Population (Demography)—The Census; Division III, Agriculture; Division IV, The Industrial Census (Fisheries, Furs, Forestry, Dairy Factories, Mines, Central Power Stations, General Manufactures and Construction); Division V, Exports and Imports; Division VI, Transportation (Land and Water); Division VII, Internal Trade, Prices, etc.; Division VIII, Finance (Public and Private)—Wealth, Debt, Taxation; Division IX, Administration of Justice; Division X, Education; Division XI, General Statistics—The *Canada Year Book*.



Statistical Progress Between 1918 and 1930.—Among special features of the early operations of the Bureau were: first, the holding of two Dominion-Provincial conferences on Vital Statistics in 1918, with the result of securing the adoption of a model bill providing for the collection of uniform records of births, marriages and deaths; second, the creation of a unified and co-ordinated scheme of agricultural information and statistics, extending over all the nine provinces of the Dominion as from 1918; third, the organization of an annual industrial census, including forestry, fisheries, mining and manufacturing, partly through the co-operation of already existing Dominion and provincial statistical branches, whose work was in the main transferred to the Bureau, but in respect of manufactures through the creation of a

new permanent organization; fourth, the consolidation of the external trade statistics previously published by the Department of Customs, the Department of Trade and Commerce and the Census and Statistics Office, in such a way as greatly to increase their usefulness to the public, while effecting a considerable reduction in printing costs; fifth, the introduction of a common tripartite scheme for the classification of commodities and industries (viz., by chief component material, by purpose and by origin) in production, trade, and prices statistics; sixth, the transfer of the Railway Statistics Branch of the Department of Railways and Canals to the new Transportation Branch of the Bureau of Statistics; seventh, the securing of monthly statistics of commodities loaded and unloaded on railways in each of the nine provinces; eighth, the extension of prices statistics and the establishment of index numbers of export and import valuations, of prices of services and of prices of securities; ninth, the planning of comparable statistics of provincial and municipal public finance, the estimation of the national wealth and income and of the international balance of payments; tenth, the commencement of Dominion-wide educational statistics, in part based upon the results of an Education Statistics Conference between the Dominion and the provinces held in October, 1920.

Within the next few years criminal statistics were reorganized and the relations between the Bureau of Statistics and the Department of Labour in respect of so-called "social statistics" were reduced to formal working arrangement with elimination of overlapping. The *Canada Year Book* was also reorganized on a greatly improved plan in the 1922-23 edition, benefiting largely from the improved statistical material now becoming available in almost every branch of statistics. Plans for the monthly publication of important business data finally eventuated in launching the *Monthly Review of Business Statistics* in 1926, its basic data covering the post-war period from January, 1919. In the meantime a first tentative census of distribution had been taken as for 1924, but the results, though valuable, were partial and incomplete, since not all distributors were included and many of those covered could not supply the desired information.

A quinquennial census of the population and agriculture of the Prairie Provinces was duly taken in June, 1926, and a considerably increased amount of information was made available therefrom, the more important data being graphically brought out by the publication of an atlas of the modern type, consisting largely of dot-maps illustrating population and agricultural phenomena. A special illustrated publication issued for the Diamond Jubilee of Confederation and entitled "Sixty Years of Canadian Progress" was issued in the spring of 1927 to the number of 180,000 copies, and the great demand for it led later on to the issue of an annual publication of similar character popularizing the *Canada Year Book* and under the

[[The Dominion Bureau of Statistics]]

title (for the latest edition) of "Canada 1935: The Official Handbook of Present Conditions and Recent Progress". Another achievement of this period was an arrangement with the Department of Immigration and Colonization for securing comprehensive information regarding immigrants entering the country, more particularly as regards their racial origins, birthplaces, languages, nationalities and occupations. This has facilitated comparisons with the data secured at the Decennial Census of 1931. Throughout these years the different branches of the Bureau were steadily increasing the quantity and improving the quality of their product, while at the same time there was an increasing correlation of data which were of interest to more branches than one. A notable recent achievement has been the arranging for uniform statistics of provincial receipts and expenditures, assets and liabilities, on a uniform plan worked out at a Dominion-Provincial conference in September, 1933.

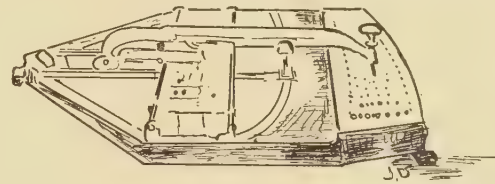
The Census of 1931.—The crowning achievement of the Bureau in many ways up to the present time (an achievement the results of which are not yet wholly completed) has been the Seventh Decennial Census of 1931, the most elaborate investigation yet to be made of the population and agriculture of the Dominion. Forty-two questions were asked on the general population schedule, and six additional questions on the supplemental schedule for the blind and for deaf-mutes. No fewer than 605 questions appeared on the general agricultural schedule regarding each of the 729,000 occupied farms, and 17 regarding each vacant or abandoned farm. Fifty-two questions were asked regarding animals and animal products not on farms. Finally, ten questions were added to elicit information regarding the existence of institutions and of merchandising establishments; special questionnaires were afterwards included. The report as planned will extend to fourteen volumes.

Two special features regarding the Census of 1931 require to be mentioned. Besides the information previously collected at the census, a special Census of Institutions was taken, including 806 hospitals, 58 mental institutions, 456 charitable and benevolent institutions and 42 penal and corrective institutions, and comprising statistics of the staff, the patients and the finances. The Census of Merchandising and Service Establishments was a much larger affair, being taken for 125,003 retail establishments, 42,223 service and amusement establishments, 4,958 hotels and 5,108 wholesale and 8,032 other bulk distributors. This time the whole trading community of Canada was adequately and comprehensively covered, while the care taken with the classification secured excellent usable results.

Besides the Census of Institutions and the Census of Merchandising and Service Establishments, there was also in 1931 a census of unemployment which, however, was part of the general population census. All persons, to the total number of 2,570,000,

reporting that they were gainfully occupied as wage-earners (this term including also salaried persons) were asked whether they were at work on the date of the census (June 1, 1931) and, if not, the reason therefor; also the number of weeks' work that they had lost during the twelve months prior to the census, and the causes of such loss of time. The results of this census, together with the less elaborate results of a somewhat similar investigation made at the Census of 1921, taken together with the monthly data furnished by some 8,000 to 9,000 employers regarding the number of their employees, have formed the statistical basis for the actuarial calculations underlying the scheme of unemployment insurance enacted by Parliament in 1935.

Tabulating Machinery of the Bureau of Statistics.—Throughout its history the work of the Bureau has been greatly facilitated by the use of tabulating machinery, which has enabled extraordinary results in increased quantity of statistics to be secured at minimum cost. Thus in the compilation of the census, after the information given on the returns has been revised and coded, the data are punched on census pantographs or on commercial punching machines (both types of machine are in use at the Bureau) and are afterwards passed through verifying machines for checking as to accuracy. They are then “gang-punched” for such facts as locality, which, being the same for considerable numbers of cards, can be dealt with in a wholesale way. Thereafter, they are passed to the sorting and tabulating machines which carry out the segregations and analyses of the data. The individual card is handled by a combined sorter-tabulator specially built in the Bureau itself, and the results by areas are photographed from the dial of the machine. The “family and occupation” card is handled by commercial sorters and printer-tabulators, and the results of the compilation are automatically printed on result-slips.

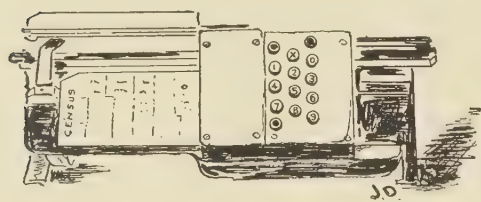


Census Pantograph

The new sorter-tabulator invented in the Bureau is of such outstanding importance that a brief description may be of interest. In 1911, a number of sorters and tabulators had been built on the then latest model for the use of the Canadian Census, and were used also for the Censuses of 1916, 1921 and 1926. The then operating process was briefly as follows: the cards as delivered from the punching staff and in the order in which the names occur on the census schedule were first sorted (e.g., by sex, ages, or birthplaces, etc.) and were then transferred to the tabulators which cross-classified each group with five other columns on the census card; the tabulators were fed by hand, and the results had likewise to be transferred by hand from strips printed on the machine. The limitations of this method, apart from the slowness of

The Dominion Bureau of Statistics

hand operation and the danger of error in transcription, lay in the fact that only five columns out of twenty-odd on the census card could be cross-analysed at one time; the Bureau therefore had to exercise selection as to what cross-classifications of the items with each other could be completed within the limit of time and expenditure available. To overcome this, experiments were carried out in the Bureau, for some time prior to the Census of 1931, on the construction of a combined sorter and tabulator which, while completing any given sort, would automatically record all

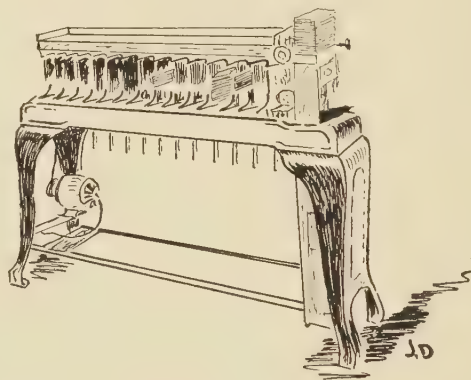


Commercial Key Punch

the items punched on the census card—at the same time enabling the results to be mechanically transcribed. The experiments met with success and, after an exacting test, three sorter-tabulators were constructed in the Bureau's workshop during 1930-31, at a cost of approximately \$8,000 each.

The manner in which the new sorter-tabulator operates is briefly as follows: The cards for a given area are in the first instance put through the machine for a given sort—say, by ages. As this sort is being made, every fact on the card is simultaneously recorded. Thus at the end of the first sort a summation of all the individual facts collected by the census is available. The cards are then put through for the second sort—say, by birthplace—during which process each fact on the card is cross-classified automatically for each age group resulting from the first sort. At the end of a limited number of sorts, practically every fact on the census card is cross-classified with every other fact. These cross-classifications are recorded on a traverse dial from which transcription is made by photography.

The superior efficiency of this method as compared with its predecessor is indicated not merely by the number of columns handled by the new machines and the old, respectively, but by the permutations of the cross-classifications involved. In point of fact, the new machine represents a capacity in cross-analysis several thousands of times greater than the old—a capacity that sets no practical limit on the number of classifications that can be made and placed on permanent record within the period allotted to the census compilation. It is estimated that the three sorter-tabulators built by the Bureau for the Census of 1931 have, in the two years in which they have been in use, produced materials over fifty times as compendious as would have been possible



Sorting Machine

with the equipment of 1921, and at materially lessened labour costs. Improvements are being carried out that will permit the summation of acreages, yields, etc., on the agricultural schedule by the same machines.

Conclusion.—The organization of the Dominion Bureau of Statistics as it has developed up to 1935 is shown in the diagram which appears as the frontispiece of this publication. The Bureau now covers in so far as is practicable, the general field of national statistics. Of special significance, therefore, are its constitution^o and working machinery, which, although they have already been touched upon, are more fully indicated in the following pages. In brief, the basic objective of its constitution is to secure the benefits of central direction and organization, at the same time that the facilities of departmental organizations are made full use of for statistical purposes, while administrative interests in specific statistics are conserved.

PART II

CONSTITUTION AND ADMINISTRATIVE MACHINERY OF THE DOMINION BUREAU OF STATISTICS

The purpose of the Dominion Bureau of Statistics includes, in the first place, the economies in overhead which concentration usually promotes, as in staff and equipment. A characteristic of statistical work is the large proportion of routine, with its ebb and flow, which offers a fertile field for organization. The use, again, of calculating and tabulating machinery, which has revolutionized statistical work, has obviously greater opportunities in large scale operations. A central reference library on methodology and the statistics of other countries is a further advantage. Another flows from bringing the higher statistical officers into constant contact with one another. Further, the convenience of the public is promoted by co-ordinating the content and thus reducing the number of questionnaires, and by providing a general repository for statistical data of various kinds.

But the fundamental purpose of statistical unification lies in the fact that its great subjects—population, production, trade, finance, labour conditions, etc.,—are not distinct and separate, but are closely interrelated—some, in fact, being of the nature of “cross-sections” of the rest—the State itself being an entity and not a series of disparate activities. The statistics of the country, therefore, should be framed to illustrate these relationships—through common definitions, common classification systems, common mathematical technique, and the like. In this view, a national statistical system is not merely an aggregate of the statistics of those activities that fall under specific departmental supervision (“by-products of administration”), but attempts a purview of the totality of phenomena and of the interplay of the parts. Not only should the State be provided with statistics on subjects of direct administrative interest, but these statistics should be enlarged and “articulated” with each other so as to form in so far as possible a single comprehensive conspectus.

It is unnecessary to enlarge upon the interlocking nature of statistics above referred to. The statistics of population, for example, which include on the one hand, the census or stock sheet of the people, and on the other, the statistics of current movements in the population, namely, vital statistics and the statistics of migration, should clearly be conceived as a single scheme, to which, in turn, such “social”

statistics as criminal statistics, institutional statistics, labour statistics, etc., should be relatable for background. In the economic field, the various phases of production, highly differentiated as they are, should be envisaged as a whole, in order not only that "production" itself may be uniformly dealt with, but that such phases as capital, labour, equipment, etc., may be covered—and that on a common basis. Moreover, production statistics should for purposes of analysis be grouped according to the same principles as are employed in the statistics of trade, prices, distribution, etc., and the commodity classification should if possible be related to the industrial classification, and the latter to the classification of occupations. Again, such devices as index numbers should be so technically constructed as to yield results that are comparable from field to field.

Canadian Statistical Legislation.—The legislation designed to meet the above requirements in Canada is the Act "respecting the Dominion Bureau of Statistics", which was passed in 1918 (short title, "The Statistics Act, 1918"), and which is reproduced as Appendix I. As already stated, this legislation, in creating the Bureau, assigned to it the general duty of measuring scientifically and accurately all the measurable phenomena of the life of the Canadian people, thus applying the common definition of statistics as "the science of the measurement of the social organism as a whole and in all its manifestations", while to meet the fact that numerous statistics originate and are primarily used in particular Departments of the Government, or for various reasons may best be collected through such Departments, the Bureau was further directed in the Act to collaborate with all other Departments of the Government according to regulations to be formulated by the Governor in Council (see page 17). The Act is reprinted as Appendix I hereto.

It is the latter problem of collaboration that constitutes, of course, the traditional difficulty in the organization of a unified statistical system. In Canada, such collaboration involves two distinct series of Departments, namely, those constituting the Dominion Government and those of the several Provincial Governments. Under the British North America Act, "The Census and Statistics" is mentioned as the sixth of twenty-nine subjects exclusively assigned to Dominion jurisdiction (Section 91, B.N.A. Act). This does not imply that statistics are not to be collected by provincial authorities, particularly on the numerous subjects of social or economic import falling under their jurisdiction (sixteen categories as defined by Section 92 of the British North America Act). It does imply, however, that the Dominion Government should undertake the organization of a national system of statistics, comprehensive in scope, co-ordinated as an entity and generally adapted to the needs of the country as a whole—and that, of such a system, provincial records should form a consistent part.

The Dominion Bureau of Statistics

The machinery for statistical collaboration is accordingly twofold. First, in the case of Dominion Departments, a regulation was approved by Order in Council immediately on the passing of the Statistics Act in 1918, requiring the Dominion Statistician to confer with the Departments producing or requiring statistics, and thereafter to recommend to the Cabinet a *modus vivendi* between the Bureau and the Department, in each case conserving the interests of both. Such recommendation, if approved by the Governor in Council, was to become the working arrangement in the field to which it related.* (In further recognition of the same principle, the Dominion Statistician or the Bureau had been named in certain departmental Acts, e.g., the Railway Act, the Public Health Act, the Dominion Bankruptcy Act, etc., as in effect the statistical agent of the Department in question.) Secondly, in the case of Provincial Departments, the Statistics Act (see Sections 9 and 10, p. 68) provides that arrangements may be made between the Bureau and any Provincial Department for the collection and compilation of statistics and the supplying of statistical information by Provincial Departments to the Dominion Bureau, the latter being given access to all provincial records. A further provision extends the franking privilege to Provincial Departments co-operating with the Bureau. In the province of Quebec, a central statistical office covers a good deal of the statistical field, the Bureau in this case working mainly with that office.

Under this legislation numerous arrangements involving both Dominion and Provincial Departments in specific subjects were in due course placed in operation under authorization by Order in Council, the object in each section being to create the most efficient organization for (*a*) the collection, compilation and publication of statistical data, and (*b*) the pooling of available information interpretative of Canadian social and economic phenomena. In practice, these arrangements were mostly arrived at in a series of conferences between the Dominion and provincial, as well as important outside, authorities—the whole in accordance with the general plan drawn up at the beginning providing for the practical comprehensiveness of the scheme and that each part should be conceived in its general relations. In effect, while the entire field of statistics was brought under the primary control of the Bureau, most purely statistical branches being transferred or reorganized, this was effected without impairment of departmental statistical requirements. The statistical fields which were made the subject of specific Orders in Council included: the Census, Vital Statistics, Migration, Agriculture, Fisheries, Mining, Forestry, Hydro-Electric Power, Internal Trade, Transportation and Labour Statistics.

Modus Operandi.—An example of the practical working of this mechanism may be given. In, say, mining, dairying, or forestry statistics, where each province

*A copy of this general regulation is reprinted as Appendix II.

previously acted independently and often by differing methods, with the corresponding Dominion Department blanketing the work in whole or in part (the statistics being limited almost invariably to production alone), the following typical arrangement is now in force: (1) a uniform method and technique has been arrived at in conference between the Bureau and the Dominion and Provincial Departments concerned; (2) the Bureau of Statistics prints and provides the standard forms and schedules as agreed upon; (3) the Provincial Government Departments in most cases undertake the collection and visaing of the data; (4) the Bureau of Statistics compiles the schedules according to an agreed plan; (5) publication of the data is made on a Dominion-wide basis by the Bureau, the provinces being given their own data for use in any way desired; (6) the Dominion Departments use the Bureau as their statistical agency and obtain from its appropriate branches such statistical services as they require. An organization of this kind offers four major advantages: (1) it eliminates duplication of work and is *pro tanto* economical; (2) it ensures uniformity and comprehensiveness of treatment within the sphere of each particular subject; (3) it ensures co-ordination between field and field—for example, in production, as between mining, forestry, the fisheries, general manufactures, etc.; (4) it secures a delimitation between the economic and the technical branches of information (the Bureau of Statistics is directly concerned with the former alone, but from its close association with the technical Departments in the way described—it works with over 80 such branches, Dominion and provincial—it affords an index of general informational data, which is on occasion useful to the general public).

The same principle of organization has been applied *mutatis mutandis* throughout the social as well as the economic field. In vital statistics, for example, where the nine Canadian provinces once operated under nine distinctive Acts, with nine different series of schedules for collecting the information, and with nine different methods of compiling and presenting results, there is now an agreement which has effected: (*a*) uniform provincial legislation and schedules (arrived at in Dominion-Provincial conference); (*b*) uniform registration by the provinces on standard forms supplied by the Bureau; (*c*) compilation by the Bureau of registrations forwarded in duplicate by the Provincial Registrars General; (*d*) the bringing out by the Bureau of a Dominion report on vital statistics, prepared in consultation with the Dominion and Provincial Departments of Health. At the same time, vital statistics is made an integral part, on all points of method, scope, etc., of the general scheme of demographic statistics, including the census, statistics of migration, criminal statistics, etc. The plan as a whole takes cognizance of the informational activities and requirements of every Dominion and Provincial Department, and, as already said, is planned to meet national statistical requirements from the widest possible standpoint.

[[The Dominion Bureau of Statistics]]

Thus the Bureau represents a point of view, which from its essential nature, must be superimposed to a considerable degree upon the ordinary departmental organization of government and is thereby apt to encounter administrative resistance. That a scheme of this kind, however, is entirely practical as well as fruitful is evidenced by the fact that it embraces not only the Departments of the Dominion Government, which are under the same legislative authority as itself, but those also of the Provincial Governments, which are sovereign bodies and as such under no obligation to assent to any scheme of collaboration that is not of definite benefit.

A Social and Economic Laboratory: The Economic Council of Canada.—The final concept in the organization of the Dominion Bureau of Statistics is that of a national laboratory for social and economic research. On the deductive side of such research reliance must, of course, be chiefly placed on the universities and private scholarship. What is particularly needed to-day, however, is inductive factual material that will throw light not only upon practical problems but upon theoretical backgrounds. It is peculiarly the function of government to provide statistics for such a purpose for the twofold reason that (*a*) the heavy costs, and (*b*) the inquisitorial powers, involved in extended statistical inquiry are beyond reach of ordinary private initiative. The work of the Bureau throughout has been planned, therefore, with a view to the utilization of its materials for research purposes. Increasing numbers of scholars have taken advantage of the facilities which the Bureau presents, the Bureau contributing an arrangement whereby teachers in the social sciences may obtain employment during the summer vacation period to work on problems of the Bureau which are also of professional interest.

The Bureau's position in this regard was further defined in 1935, under the Act establishing the Economic Council of Canada. The Council is an honorary advisory body on social and economic questions, consisting of seven representatives of the public service, five representatives of organized bodies of a social or economic character and three other specially qualified persons. The main duty assigned is to study the social and economic problems of Canada and to authorize investigations in that behalf. In the latter connection it was provided that all statistical investigations authorized by the Council should be carried out under the Statistics Act, the Dominion Statistician being *ex officio* Secretary of the Council. Another function of the Council is to make recommendations as to the organization of statistics as the basic data required for social and economic research. Thus, whether statistics be regarded as a science which embraces the content of its materials or only as a scientific method by which these materials are collected and interpreted, the organization and procedure necessary to ensure their adequate range is provided for.

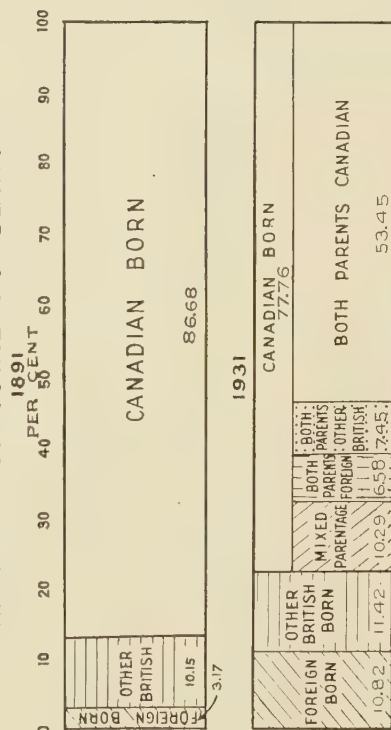
No organization of the kind can achieve finality, but the plan above outlined will show, at any time, with regard to a particular problem, (*a*) exactly what is the scope of existing data within the country, and (*b*) what steps are necessary to bring non-existent materials into being, so that loss of time and confusion under expansion or emergency may be avoided. At the end of such expansion or emergency, it can disband to advantage, preserving the experience and maintaining such nucleus as may be advisable. In a word, what has been termed a “thinking office” has been established for statistics, the main duty of which is to be alive to the general statistical needs of the Government and the main lines which research should follow in assisting the nation’s progress.



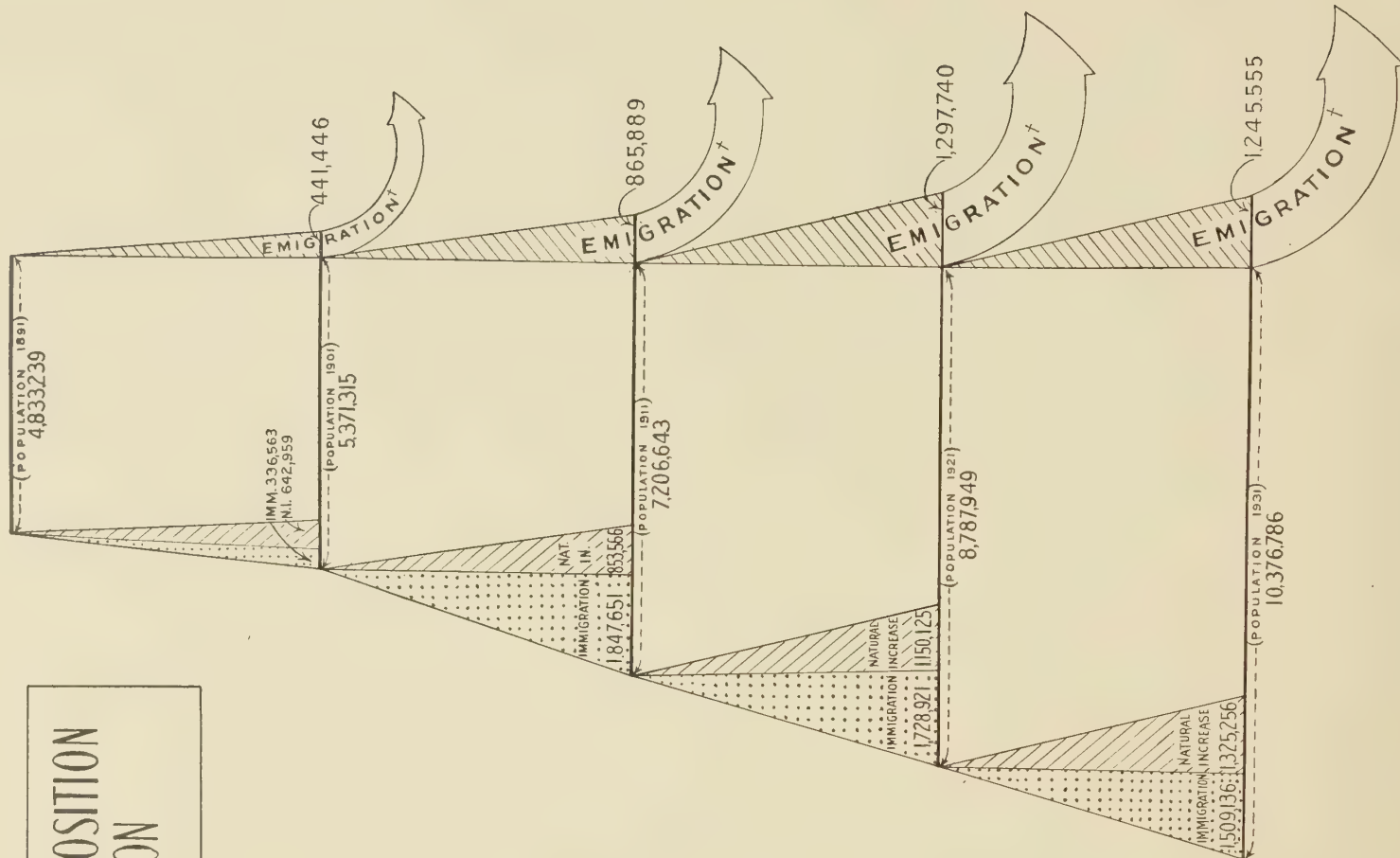
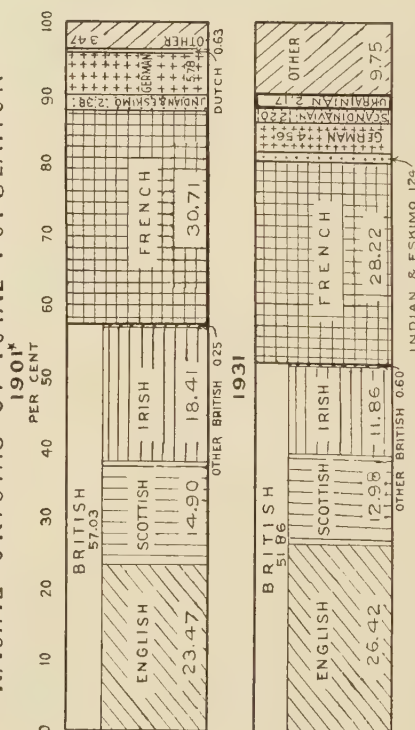
ELEMENTS IN THE GROWTH AND COMPOSITION OF THE CANADIAN POPULATION

1891-1931

NATIVITY OF TOTAL POPULATION



RACIAL ORIGINS OF TOTAL POPULATION



* Racial Origins were not taken in the Census of 1891.
 † Emigration figures are estimates made by the Dominion Bureau of Statistics.

PART III

ORGANIZATION OF THE DOMINION BUREAU OF STATISTICS BY BRANCHES

The following is a brief review of the more important operations carried out in the several branches constituting the Bureau and of the methods in which the several fields of statistics are dealt with. In this connection attention is directed to the classified list of the reports regularly issued by the Bureau which is given in Appendix III.

THE CENSUS BRANCH*

First and foremost among the subjects treated by the Bureau is Demography—statistics relating to the people themselves—thus carrying out the old principle that “the proper study of mankind is man”. Here, the most important task is the taking of the census of population. The Census, as we have seen, dates from the very dawn of Canadian history, and in view of the extended area of the Dominion, the sparseness of settlement in certain sections, the detail demanded in a modern census and the great variety of conditions to be met, it constitutes an administrative problem of the first order. The decennial census in Canada falls in June in the years ending in “1” but, with the organization of the Prairie Provinces, a statutory obligation was incurred to take a quinquennial census of these areas midway between the decennial censuses and similar in all respects to the latter—this in view of the rapid rate of progress in these provinces during recent years. A staff at head office, permanent since 1905, plans and directs the complete arrangements for the taking of the census. Since the legal *raison d'être* of the census of Canada is to determine representation in Parliament, the country is organized into districts corresponding mainly to the Dominion electoral divisions. These are, in turn, subdivided into enumeration areas corresponding roughly to polling subdivisions. In the fieldwork alone this involves the employment and organization of 250 “Commissioners” and about 16,000 enumerators for the whole of Canada, with an extra clerical staff of several hundreds for the subsequent compilation process at Ottawa. On completion of compilation, the permanent staff directs the construction of the tables in which results are presented; oversees the making of the analyses and special studies based thereon; sees the

*For a detailed account of the Canadian Census see the *Administrative Report of the Dominion Statistician on The Seventh Census of Canada, 1931*, being Introduction to Vol. I of the Report of the Census of Canada, 1931.

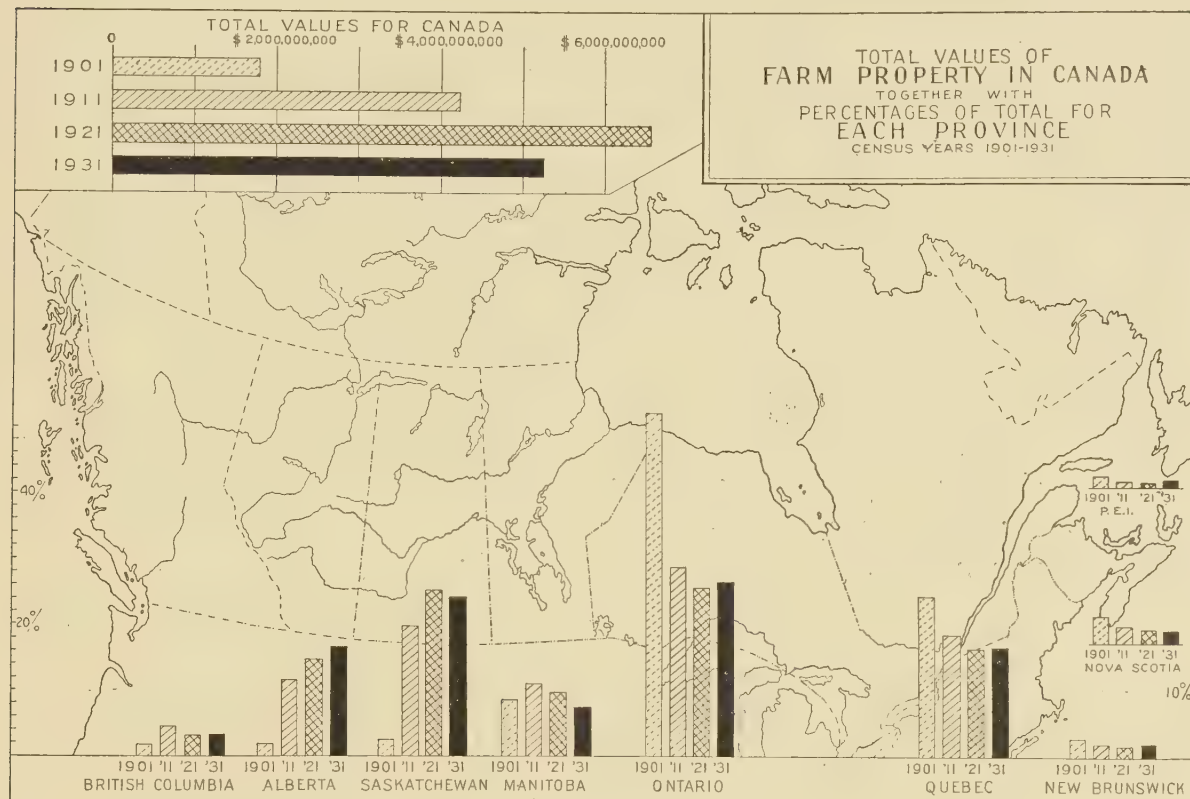
[[The Dominion Bureau of Statistics]]

volumes of the report through the press, etc. In recent years the records of censuses over thirty years old have been utilized on behalf of persons desiring evidence to establish their right to old age pensions; this alone requires a staff of from 6 to 9 clerks continuously in making searches.

The Canadian Census in the earlier decades of Confederation covered several subjects in addition to population, such as production in its various phases, educational and municipal institutions, and births and deaths in the census year, the object being to make the overhead involved in the setting up of the census organization yield as large a return as possible, other statistics on these subjects being at the time very fragmentary. But the census organization is obviously unsuited to cover a subject like production, which breaks up into numerous series, each requiring elaborate and distinctive schedules, or a subject like births and deaths, which must be recorded with scientific exactness as they occur, or a subject like institutions, which similarly demands a special *expertise*. Moreover, more frequent than decennial figures are needed in such fields. The centralization of statistics under the Bureau and the organization of these and other branches of statistics in collaboration with Dominion and Provincial Departments, on an annual basis and with expert personnel in each case, has permitted the census proper to be confined to population, with the single exception of agriculture—the latter being included in view of the number and far-flung dispersion of the units (728,623 farms in 1931), the consequently extended rural organization involved, and the fact that the census staff is, upon the whole, well fitted to carry out an agricultural inquiry. As already noted and as will be mentioned later on, the Census of Merchandising and Service Establishments and the Census of Institutions were taken at the same time as the general Census of 1931, but the organization for each of these was on a separate basis, except that the population enumerators were employed in visiting the establishments and listing the names and addresses of the owners or superintendents.

The Canadian Census, therefore, as now taken, is mainly in two great subdivisions—the census of population and the census of agriculture. Under the former are compiled the statistics of rural and urban populations, of families and dwellings, of age, sex and conjugal condition, of birthplace, nationality and racial origin, of literacy and religion, of occupations, earnings and unemployment (which latter covers not only unemployment as at the date of the census but a record for each wage-earner for the census year)—the whole comprising 42 rubrics. Under agriculture, the census deals with farm acreage, tenure and equipment, farm mortgages, taxes and other expenses connected with farming, crops grown in the year preceding the census, and live stock and live-stock products; the amenities of the farm home were also the subject of investigation in 1931, when questions were asked regarding the

existence of a radio on the farm, whether water was piped in the kitchen and in the bathroom, whether there was a telephone, electric light or gas. There were also questions as to the use of farm tractors and automobiles, as well as labour-saving farm implements; vacant or abandoned farms were recorded.



The final report on the Census of 1931 will be published in fourteen volumes, the first seven being devoted to Population, Vol. VIII to Agriculture, Vol. IX to the Census of Institutions, Vols. X and XI to the Trading Census, Vols. XII and XIII to a series of Census Monographs or special studies of various aspects of the life and conditions of the people of the Dominion (including Growth of the Population; Age Distribution; Fertility; Origins, Birthplace and Nationality; Rural and Urban Distribution; the Canadian Family; Illiteracy and School Attendance; Housing and Rentals; Dependency; the Occupational Structure; Unemployment), and Vol. XIV to maps, charts and diagrams illustrating the census results with related materials, and constituting in effect a Statistical Atlas similar in type but of a much more elaborate character than that published in connection with the Quinquennial Census of 1926.

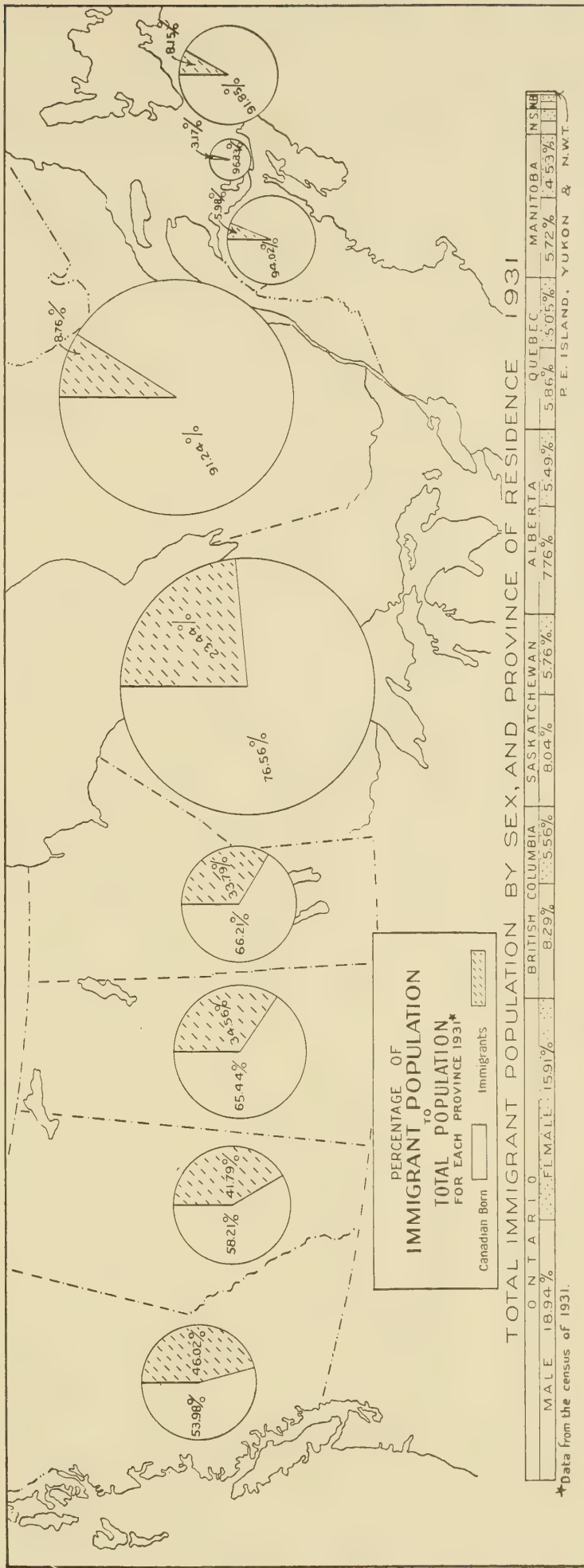
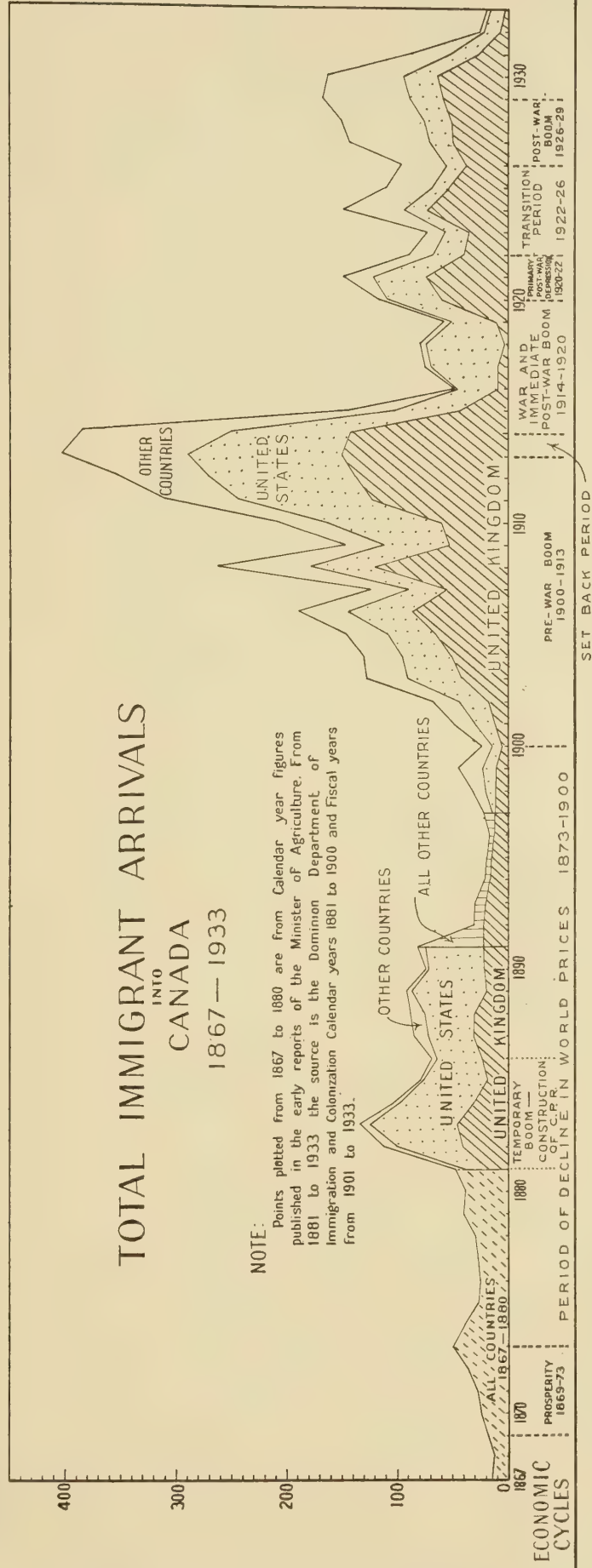
THE VITAL STATISTICS BRANCH

The vital statistics of Canada are obtained by co-operation between the Bureau and the Registrars General of the provinces, the recording of births, deaths and marriages being under provincial jurisdiction. In this connection the provinces have, as previously described, enacted similar legislation (based on a "model" Vital Statistics Act agreed upon in a Dominion-Provincial Conference) of which enforcement is about 90 per cent effective. The standard forms for the registration of births, deaths and marriages are supplied by the Bureau, copies of all registrations are made by the provinces and forwarded to the Bureau, and compilation and tabulation are carried out in the Bureau (by the punch card method) for the use of both the Dominion and the provincial authorities. An extended annual report is published by the Bureau, with monthly advance statements, in connection with which the advice of the Department of Health (whose Act requires its statistical requirements to be met "under the Statistics Act") is sought. Special reports are also compiled from time to time on such questions as fertility, the actual localities of the homes of those born or dying in hospital, the nationality or mortality of special classes among the population (notably the Indians), racial origins, birthplaces, etc., of all parents and of all decedents being recorded. On the whole, Canadian vital statistics have now attained a high degree of excellence and comprehensiveness.

IMMIGRATION STATISTICS

The second element in the movement of population is migration from one area to another, immigration into the country, or emigration from it. Immigration statistics, which are normally of great public interest in a country like Canada, are now secured in much greater detail than formerly, the record of racial origin, birthplace, language, nationality and intended occupation of each immigrant being recorded at the ports by the officials of the Department of Immigration (on schedules which conserve similarity of definition and terminology with the census and vital statistics) and sent to Ottawa to be compiled for the use of the Department and the Bureau of Statistics. The compilations are effected from cards punched from the original entries by the Department of Immigration and forwarded to the Bureau for the machine process. For the past ten years, a record has also been secured of Canadians returning from the United States to take up permanent residence in Canada. Emigration statistics, however, are still lacking, the only substitute being the immigration records of the United States, the United Kingdom and certain Continental European countries. However, the checking up of immigration figures as obtained at the time of immigration with those of immigrants resident at the time of the census, (the latter being required to state the year of immigration), gives an approximate idea of the

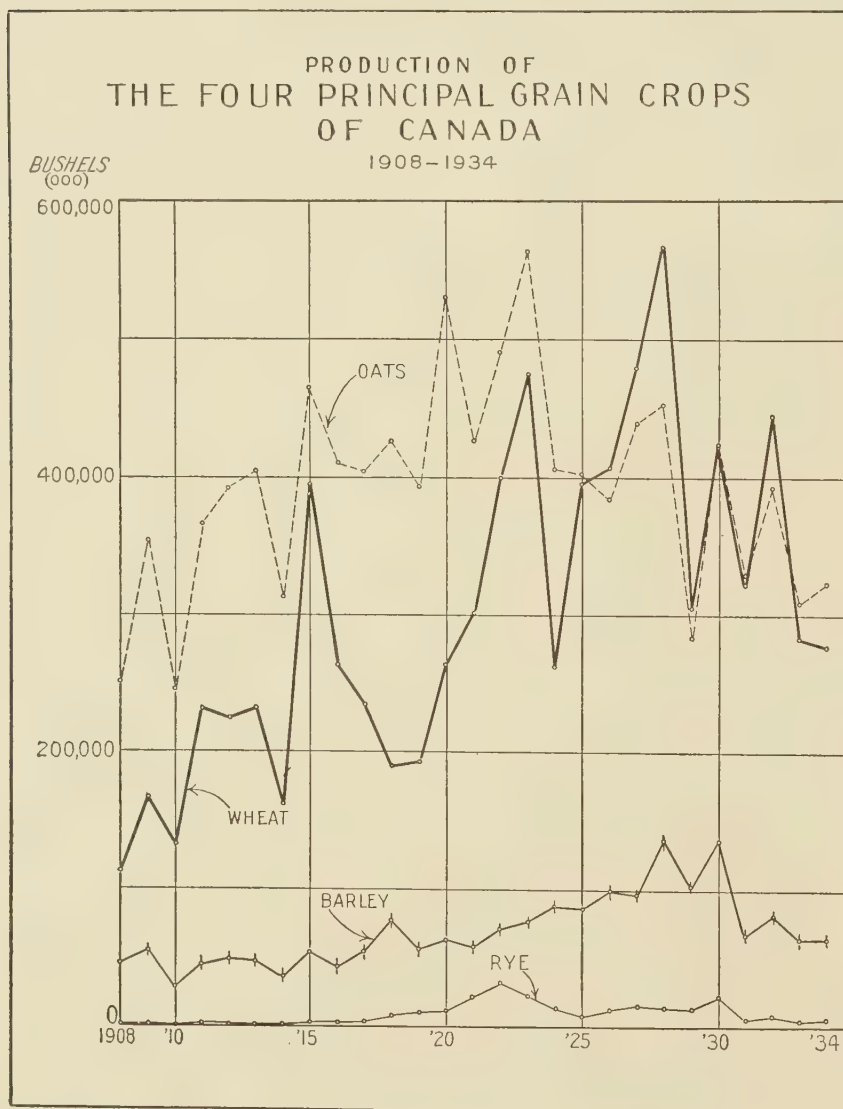
THOUSANDS OF
IMMIGRANTS



magnitude of the emigration movement, allowance being made for deaths of immigrants as recorded in the vital statistics. Immigration figures are published on a fiscal year basis in the annual report of the Department of Immigration, with various analyses on a calendar year basis in the *Canada Year Book*.

THE AGRICULTURAL STATISTICS BRANCH

Agriculture is Canada's largest individual industry, and the securing of adequate statistics regarding its activities is a matter of primary importance to the Dominion. The definitive figures are those of the decennial and quinquennial censuses, which, as previously explained, are of an elaborate and comprehensive character. But for agriculture in a country like Canada annual statistics are a *sine qua non*. In time



past, the fact that both the Dominion and the provinces had Departments of Agriculture with concurrent jurisdiction led to much duplication of effort and incomparability of results in the collection of annual statistics—a source of embarrassment to the many important interests which required trustworthy agricultural figures, and the cause of constant friction among officials, especially when Canada became one of the first adherents of the International Institute of Agriculture. In view of the magnitude and diversity of prevailing conditions, attempts at co-

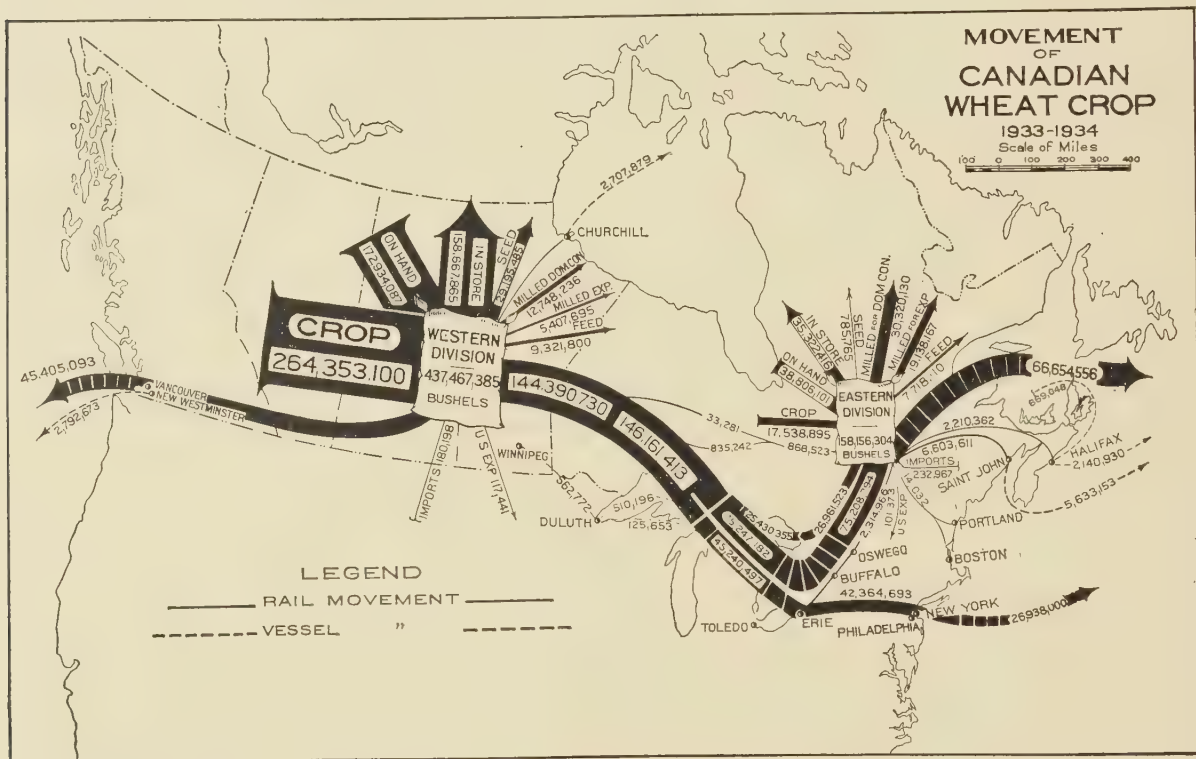
ordination failed for some time. Co-operation of the type described in the following paragraphs, however, was ultimately achieved with the setting up of a special branch on agriculture in the Bureau of Statistics, and marked improvements in the extent and accuracy of the statistics have since resulted.

Acreages and Farm Live Stock.—The basic statistics annually required are those of the acreages sown to field crops, and of the numbers of farm live stock. By arrangements in force since 1918 and carried out by the Bureau in co-operation with the Provincial Government Departments, a simple card-schedule is distributed to individual farmers each year in the month of June. It covers the area sown to each field crop, the numbers of live stock and poultry on hand, and breeding and marketing intentions with regard to livestock and poultry. The cards are distributed and collected through the agency of the rural schools in New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan, while in Prince Edward Island, Nova Scotia and British Columbia the cards are sent direct to the farmer through the mail. About one-quarter of the cards are returned. After being visaed by the provincial Departments, compilation is made in the Bureau, and the interpretation of the resulting sample is arrived at by the Bureau and the provincial authorities in consultation. A similar card, but limited to live stock and poultry and breeding and marketing intentions, is distributed in December. The results of the June acreage inquiry for wheat, oats, barley, rye and flax in the Prairie Provinces are ready for publication in August, while those for the remaining crops and for live stock are published somewhat later. The areas thus determined when multiplied by the average yields per acre form the basis for the total estimated production for each crop.

Crop-Reporting Service.—Estimation of the average yields per acre is one of the chief functions of the crop-reporting service of the Bureau, which is also organized in co-operation with the provinces and consists of about 16,000 agriculturists, supplemented by local bankers, managers of elevators, rural postmasters, railway agents, superintendents of experimental farms, etc. It is of a voluntary nature, but a subscription to an agricultural paper is presented for a continuous series of reports. The service has for its object the issue of accurate, timely and independent reports on crop conditions (based on schedules varying from month to month supplied by the Bureau throughout the Dominion), first, in the interests of the general body of Canadian farmers; secondly, for the information and guidance of the interests allied to and dependent upon agriculture (interests represented by statesmen, economists, bankers, grain dealers, transportation agents and others); and thirdly, for reporting to other countries and the Institute of Agriculture at Rome in return for reports on the similar production of other countries and of world totals. Supplementing the monthly reports from crop correspondents, the Bureau issues telegraphic crop reports,

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utilizing for this purpose the services of reporters at strategic points throughout the Dominion. For the Prairie Provinces, these are issued every week from the first of June to the first of September, while the reports on a Dominion-wide basis are issued every two weeks during the same period. As above stated, the crops are estimated by the application of these condition reports (supplemented by meteorological data supplied by the Meteorological Service of Canada) to the figures of acreages, the first numerical estimate ("preliminary") being given out in September, a second ("provisional") in October, and a "final" one at the end of the year when threshing returns, marketing movements and other additional data provide a check. A further check is afforded by a special investigation into grain stocks on farms in March. In January of each year a schedule of the dates and hours of release of these reports is issued to the press. All statistics of yields are shown by provinces.



The Agricultural Statistics Branch also follows the movement of products of the Canadian farm into domestic and foreign markets. It compiles and publishes weekly and monthly reports on the marketing of Canadian grain through the Canadian elevator system, etc., monthly reports on commodities in cold storage, and elaborate annual reports upon the grain trade and on live stock statistics respectively. In the Annual Grain Trade Report, for which many of the statistics are collected by the Board of Grain Commissioners, statistics are presented showing in detail the various

channels and markets through which the grain of Canada passes from the farm to its final destination in Canada and abroad, while comparative data for other countries bring the grain and cereal production and trade of the world under review. There is a monthly report published on Canadian milling production (flour, oatmeal, rolled oats, corn flour and meal), and an annual list of operating mills showing the capacity of each. The annual report on Live-Stock and Animal Products Statistics contains five main sections, dealing respectively with live stock, animal products, the international live-stock situation, foreign trade in live stock and animal products, and prices and consumption of live-stock and animal products. Mention should also be made of a special monthly review of the wheat situation which contains the latest figures, Canadian and foreign, bearing upon this all-important Canadian product. It is the intention to commence a similar monthly review of the situation for coarse grains at an early date, special preliminary studies, historical and analytical, having already been published for oats, barley, rye and flaxseed.

In regard to fruit statistics separate machinery is employed, the co-operation involving the Fruit Branch of the Department of Agriculture, Ottawa, and corresponding divisions of Provincial Governments in the fruit-growing provinces. A similar service for vegetable production is in process of organization. For tobacco, maple products, sugar beets, floriculture, honey, and potatoes, special arrangements also exist. In dairying statistics monthly records of the output of dairy factories are prepared in co-operation with provincial Dairy Commissioners. On each of these activities a special scheme of reporting results has been worked out.

An important publication of the Agricultural Statistics Branch for purposes of permanent record and reference is the *Monthly Bulletin of Agricultural Statistics*, which presents the more important features of the various statements and reports that are given out in the first instance, owing to their urgency, in mimeographed form. Herein will be found from year to year, according to a defined sequence, the outstanding agricultural records and statistics of the Branch relating to acreages, yields, quality and value of crops, live stock, farm labour, wages, value of farm lands, prices, etc., together with numerous special articles on subjects of interest to Canadian agriculture.

THE INDUSTRIAL CENSUS

Canada's future, economically, as a "new" country in process of rapid development, is peculiarly a matter of her industrial production. The organization of a comprehensive scheme of industrial statistics is, however, a large task, involving an extremely wide range of activities. The first Canadian statistics of production, apart from those of the decennial census (which for reasons already mentioned were

MILLIONS OF KILOWATT
HOURS

CENTRAL ELECTRIC STATIONS

1924-1935

The top curve indicates the total output of central electric stations in Canada having annual outputs of a million or more kilowatt hours, which is over 98 per cent of all station output.
The bottom curve indicates the production for general commercial uses in Canada, including all line losses, and the space between these curves represents the exports to the United States, which is hatched, and electricity used in electric boilers which is dotted.

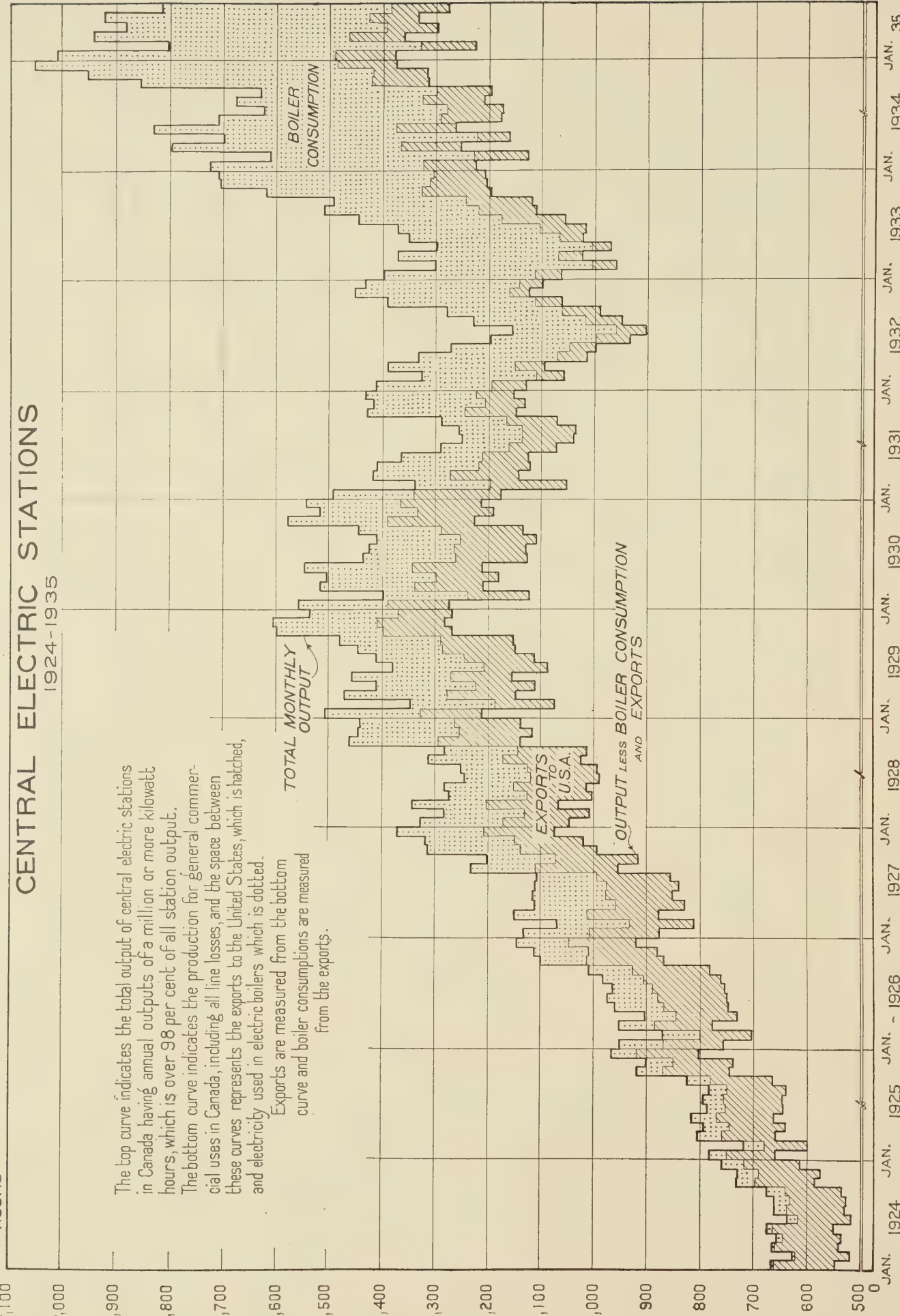
Exports are measured from the bottom curve and boiler consumptions are measured from the exports.

TOTAL MONTHLY OUTPUT

EXPORTS TO U.S.A.

OUTPUT LESS BOILER CONSUMPTION AND EXPORTS

BOILER CONSUMPTION



The importance of hydro-electric power to Canadian industry, especially in the two major industrial but coal-less provinces of Ontario and Quebec, is well known. The above chart is interesting as showing the high level of output maintained by Central Electric Stations during the years of depression. The splendid showing is due not only to the increased consumption by electric boilers (off-peak or surplus power for which there was no other market at the time), but to expansion in the industrial firm power load. Industries consumed about 80 p.c. of the total firm power generated, and of the total output about half is consumed by the following six industries: pulp and paper; primary iron and steel; non-ferrous smelting; acids, alkalis and salts; abrasive products; and flour and feed mills.

never wholly satisfactory), were naturally those of such Dominion and Provincial Departments as had administrative functions in different sections of this varied field. But as executive departments very properly adapt their methods to their executive needs, and as the latter often differ, the applicability of such statistics to other than their immediate purpose was limited. Co-ordination as between provinces in the same field was difficult; comparability of one field with another was impossible; overlapping and contradictions were prevalent; gaps existed where no Department was in the field; and there was no attempt to cover the general economic background. The remedy lay, of course, in the elimination of these differences, the filling up of gaps, and the unification of the system into a homogeneous and comprehensive whole.

It was accordingly decided in 1918 to create new machinery in the Bureau for the treatment of industrial production. The decennial census was limited to population and agriculture (the latter to be kept up to date intercensally by a special branch), while the remainder of production was organized in collaboration with Dominion and Provincial Departments having administrative functions in specific sections of the field, and by erecting independent machinery in sections outside the range of administrative supervision. In such collaboration the collection and visaing of statistics in the field is in most cases best carried out by departmental organizations; on the other hand, to the Bureau appropriately falls the duty of bringing the Departments into council and of planning the inquiry as a whole, creating the nexus of association between its parts and generally defining methods. The Bureau also has larger experience in, and greater facilities for, the work of routine compilation.

Two sections of the Statistics Act (20 and 21, see p. 70) accordingly provide for a comprehensive Census of Industry (Mines, Fisheries, Forestry, Manufactures and Construction) and this has been subsequently placed on an annual basis. In effect, the entire range of production outside of agriculture is covered.

Though the Industrial Census is conceived and planned as a unity, and has a common central indexing, filing, compilation and stenographic system, its more characteristic features are organized in distinct branches in the Bureau, in view of the importance and diversity of their subject matter. These branches are, respectively: (1) The Mining, Metallurgical and Chemical Branch; (2) The Forestry Statistics Branch; (3) The Animal Products Branch; (4) General Manufactures; and (5) The Construction Statistics Branch.

It will be noted from the Act (Sections 20-21, see p. 70) that the census is an *industrial* as opposed to a *production* census, i.e., in addition to production it covers such phases as capital, raw materials consumed, labour, wages, hours, fuel,

power, etc.; in other words, it is of the nature of a general economic survey. Thus, though some hundreds of different schedules are used in the different branches of the inquiry (in view of diversities in production, raw materials, etc., data being collected relating to about 4,000 different commodities), a common series of questions is included on such features as capital, labour, power, fuel, etc., and, of course, common methods of valuation, fiscal years, etc., are employed. As a result, the Industrial Census brings together a wealth of general material for the intensive study of numerous cross-sections of the industrial structure of Canada, such as the integration of industries, variations in capital dosage, the relation of wages to production, etc.

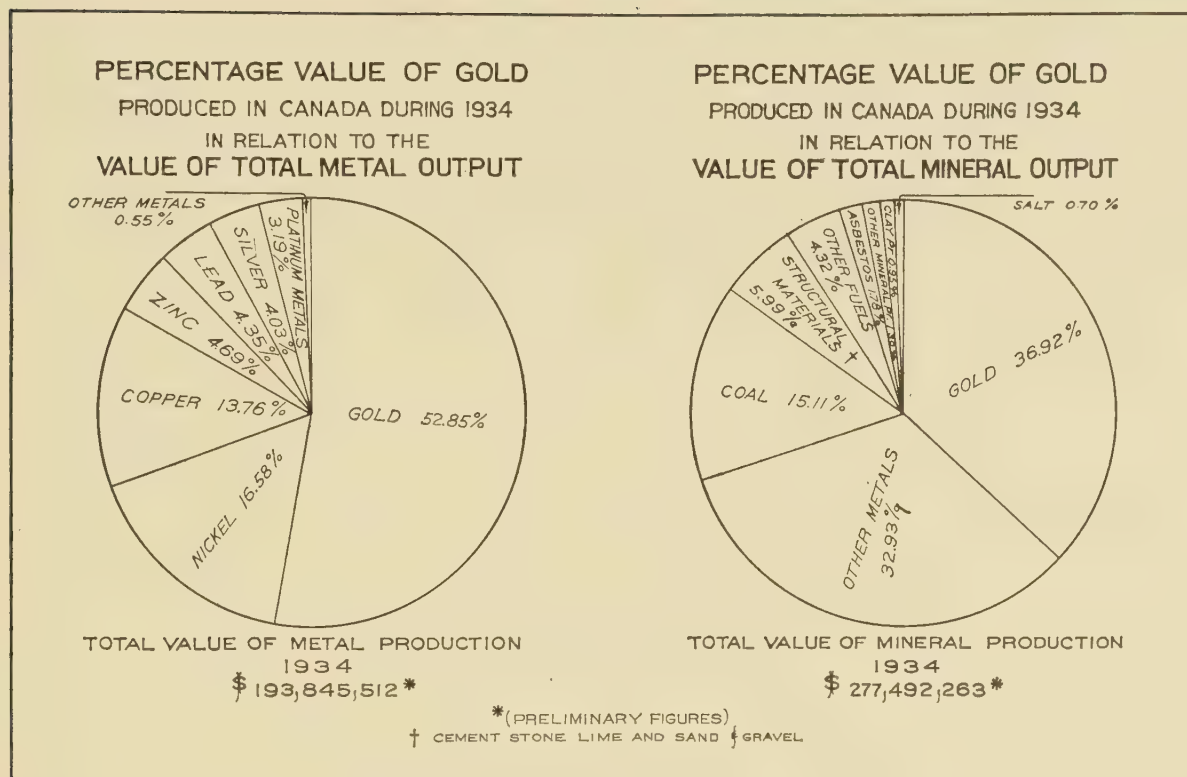
A publication of the Bureau entitled the "Annual Survey of Production" brings together in a summary way the totals of all forms of production in Canada, delimiting the various fields of productive activity so as to prevent overlapping and at the same time preserve the definitions of such fields in ordinary use (e.g., cement and brick plants may be regarded as either mineral production or as manufactures; lumber may be accredited to forestry or manufacturing as desired, etc.).

A brief review of the work in the several branches of the Industrial Census follows:—

The Mining, Metallurgical and Chemical Branch

The Mining, Metallurgical and Chemical Branch is concerned, first, with the collection and publication of statistics of the mining industry, and, secondly, with the collection and publication of statistics of those manufacturing industries which use mineral products as their chief raw material, these industries being in four groups, namely, manufactures of iron and steel and their products, of non-ferrous metal products, of non-metallic mineral products, and of chemical and allied products. Co-operation with the mining authorities of the various provinces is maintained throughout the mines sections of the investigation, joint schedules printed by the Bureau being used and duplication of effort avoided in the manner already described. Since the mining industry is conceived as an integral part of industry in general, the schedules cover not only production but capital and capitalization, employees and their salaries and wages, hours worked, together with expenditures for fuel and for power used, etc.

Annual and preliminary annual reports are published on the mineral production of Canada, together with a separate leaflet report on the principal minerals and on each mining group. In view of the special importance of coal and coke as fuel in a northern country, a separate annual report on coal statistics is issued, including the figures of production, imports and exports, and coal made available for consumption in each locality. There are also quarterly reports on coke and coal statistics. Monthly

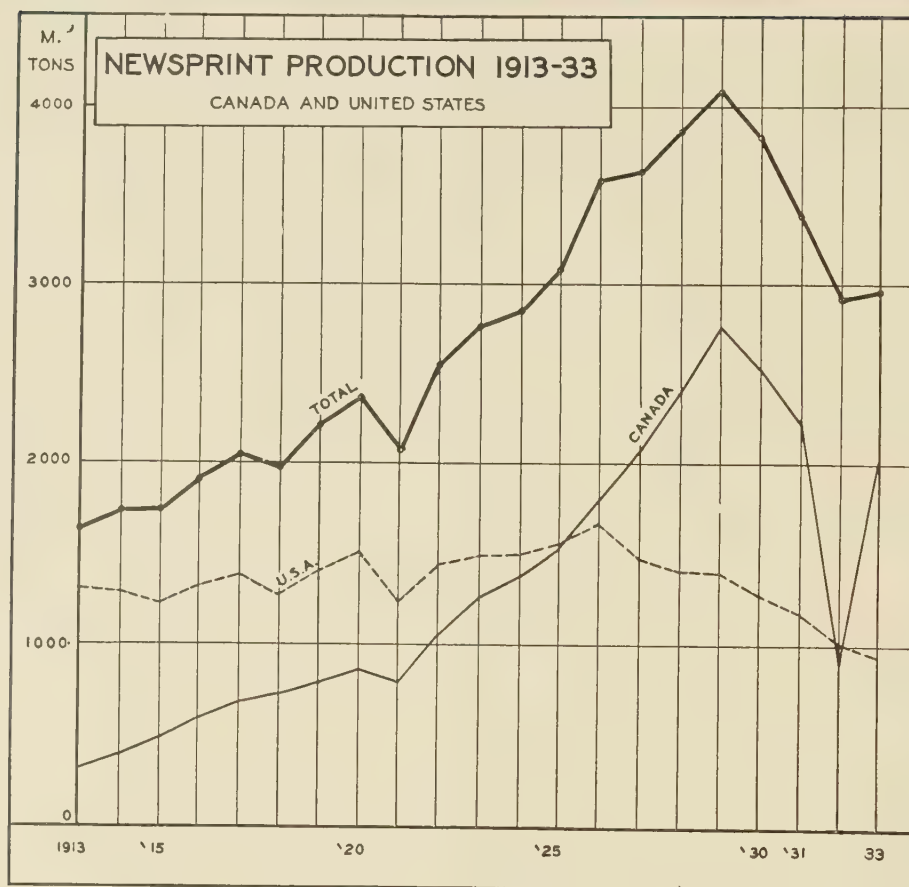


figures on the production of leading minerals and mineral products (gold, silver, copper, nickel, lead, zinc, coal and coke, petroleum, gas, asbestos, salt, gypsum, feldspar, lime, cement and clay products) are obtained and published.

The statistics of the four great classes of manufacturing industries, whose chief raw materials are minerals and mineral products, are collected and issued in biennial reports, while mimeographed or rotaprinted bulletins are issued annually for each of the more important industries included in the four classes. Also, monthly bulletins are issued on iron and steel production and on automobile production, and quarterly bulletins on the production of radio equipment, galvanized sheets and electric storage batteries. Altogether, during the last year, 61 annual, 12 quarterly and 24 monthly bulletins were distributed by this Branch. From time to time special studies are made of phases like the application of chemical processes in industry (a directory of the industries using such processes is periodically published), the uses of fuel and power, etc. An extended investigation of the consumption of miscellaneous supplies in the mining industry is being undertaken during 1935.

The Forestry Statistics Branch

The Forestry Statistics Branch operates largely in co-operation with the forestry services of the different provinces and also with the Forestry Service of the Dominion



Department of the Interior. It assembles and publishes statistics relating to: (1) operations in the woods; (2) the primary industries based on these operations, namely, (a) lumbering and (b) pulp and paper; and (3) the secondary industries using (a) lumber and (b) wood pulp and paper, respectively, as their principal raw materials. Its publications include a

comprehensive annual estimate of forest production (operations in the woods), and separate annual reports on the lumber industry, the pulp and paper industry, the wood-using industries and the paper-using industries, together with mimeographed preliminary reports (aggregating 23 in number) on the various industries included in the two last-mentioned groups. Monthly figures on the production of asphalt roofing and rigid insulating board are issued at the request of the trade; for newsprint a monthly figure is obtained from the Newsprint Service Bureau.

The Animal Products Branch

The Animal Products Branch is mainly concerned with the statistics of (a) the fisheries, (b) furs, (c) dairy factories and (d) manufactures of miscellaneous animal products, the latter including slaughtering and meat-packing, tanning, leather footwear, fur goods and fur dressing, leather gloves and mittens, harness and saddlery, and miscellaneous leather goods establishments. The fishing industry is covered in two sections, namely, (1) the primary industry of catching the fish, including a record of vessels, gear, employees, etc., and (2) the factory operations of fish canning and

curing on shore. This work is carried out in co-operation with the Dominion Department of Fisheries, whose officers collect a large part of the data, except in the case of inland waters where arrangements exist with the Provincial Governments concerned. The Branch also collects and publishes figures of fur production, the outstanding product of the vast, unsettled regions of Canada and the wild life therein, as well as of the growing industry of fur farming. Dairy production is covered by an extended arrangement with the Dairy Commissioners of the nine provinces and of the Dominion. Annual printed reports are published on the fisheries, fur farms and dairying, together with sixteen annual reports on particular industries, and monthly reports on dairy factory production, the production of concentrated milk products, inspected slaughterings, and boot and shoe production.

The General Manufactures Branch

For purposes of ordinary statistical presentation, the manufactures of Canada are classified in nine groups (on the principle of component material). Four of these groups, as already described, are dealt with in the Mining, Metallurgical and Chemical Branch, while one group (manufactures of forestry products) is the concern of the Forestry Branch, and one (manufactures of animal products) of the Animal Products Branch. (The statistics of central electric stations, it may be added, are collected on a monthly and annual basis in the Transportation and Public Utilities Branch of the Bureau, as will be noted hereinafter.) The first duty of the General Manufactures Branch is to cover the three remaining groups, namely, manufactures of vegetable products, textile and allied industries, and miscellaneous manufactures. On each of these groups, as well as on the individual industries composing them, it issues annual reports (44 in total). It also publishes quarterly statements of the stocks of canned fruits and vegetables and of leaf tobacco, and monthly statements of tire production. A special report on the sale of commercial fertilizers is prepared at two-year intervals in co-operation with the Department of Agriculture.

An equally important function of this Branch, however, is to bring together in comparable form the complete statistics of manufacturing operations in Canada, including those of the industries based on mineral, forestry and animal products as described above. This co-ordinated report assembles the production statistics by provinces, also those of a general character such as capital, equipment, employment provided, wages and salaries, size of establishments, power used and fuel consumed. In addition, it contains recompilations of the statistics according to the different classifications used in the Bureau, namely, according to the use or purpose, and according to the primary origin of the product. Finally, the report gives the more important totals for each urban community down to 1,000, and it also contains a list of all the commodities recorded as manufactured in Canada, with amounts and values.

The Construction Statistics Branch

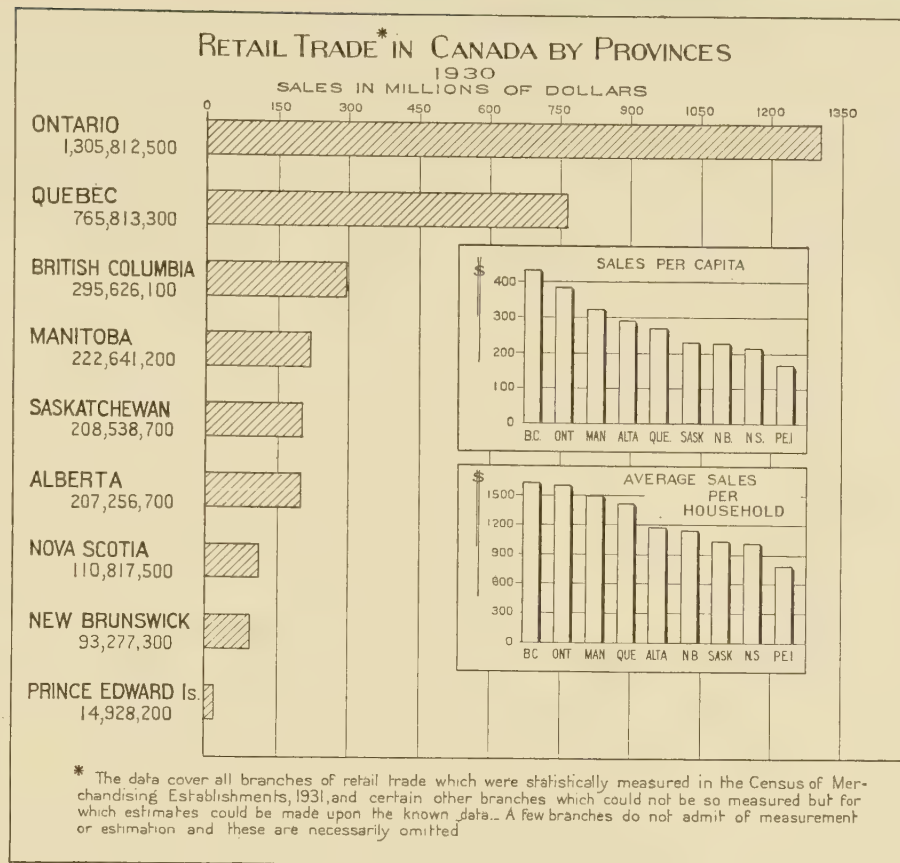
An additional Branch of the Bureau was established in 1934 with the object of obtaining a comprehensive survey of all classes of building construction throughout the Dominion, including types of materials used and their cost, values and kinds of the finished product, capital investment, wages and salaries paid, hours worked, etc. The sphere of the Branch extends to all ordinary building operations of contractors engaged in the construction of dwellings, office buildings, factories, etc. Further, records of construction on railways, telegraph and telephone systems, highways, canals, reclamation works, dams, water-power projects, bridges and ship-building, which are already collected by other Branches of the Bureau, are to be co-ordinated with the statistics of building construction in order to arrive at a grand total of all construction, including repair work. Particular care is to be given to maintaining the distinction between construction and maintenance, and to avoiding duplication as between contracts and sub-contracts. For some years past the Bureau has collected and published monthly the records of building permits issued in the cities and towns of 10,000 population and over as a "barometer" of general business conditions.

THE INTERNAL TRADE STATISTICS BRANCH

This Branch was established to take under review as much as practicable of that enormous field comprised in the internal trading operations of the country, which, owing to the extent and diversified nature of the Dominion, call urgently for study. While primary marketing statistics are for the most part treated in association with production statistics in the Bureau, the Internal Trade Branch has charge of all general aspects of distribution. A start in the direction of an omnibus measurement of interprovincial trade has been made in the institution of monthly railway traffic returns (as will be mentioned further on), but the absence of similar records for water-borne traffic renders the results incomplete. The more direct activities of the Internal Trade Branch are as follows:—

Census of Merchandising and Service Establishments.—The Internal Trade Branch counts among its main achievements the taking of a complete Census of Merchandising and Service Establishments throughout Canada as for 1930. At the decennial Census of 1931, the names of all retail and wholesale trading and service establishments were obtained and these were then required by correspondence to report exhaustively upon their activities in 1930. Some 23 kinds or sizes of such establishments were differentiated in the schedules sent out. Reports were subsequently received from 125,003 retail traders, 13,140 wholesale traders and 42,223 retail service establishments. These were carefully analysed by commodities traded

in, by amounts of sales and by types of operation, by percentages of credit business, etc., as well as by provinces and localities. Interim and final reports have been issued on retail merchandise trade in Canada, retail services in Canada, retail sales by commodities, mail order sales, food retailing, drug retailing, retail trade in rural and urban areas, wholesale trade in



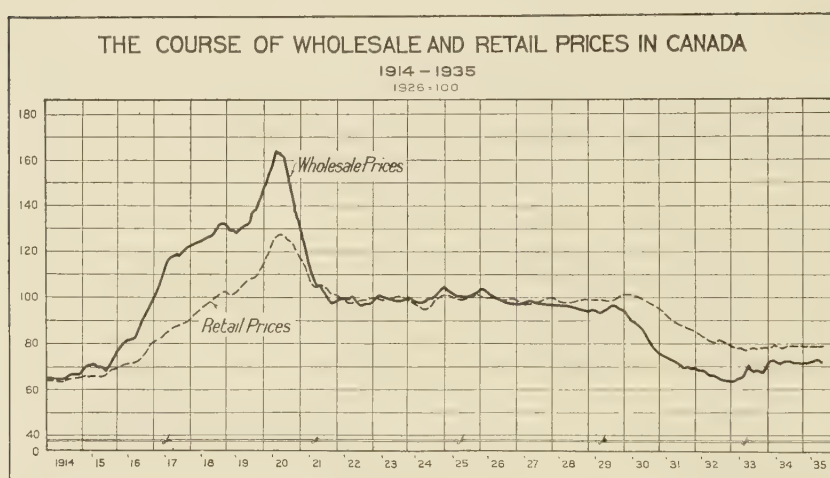
Canada and by provinces, operating results of wholesale establishments, commodity sales by wholesale establishments, chain stores, hotel operations, co-operative marketing and purchasing associations, motor vehicle sales, distribution of sales of coal mines, distribution of sales of manufacturing establishments, etc. This census was one of the first of its kind in the world, and has provided legislators, traders, economists and students of marketing and marketing areas with very detailed and extensive information regarding Canadian distributive organization. The final results will constitute two volumes of the 1931 Census Report.

An outgrowth of this all-embracing census for 1930 has been an annual survey of retail and wholesale trade based on reports obtained from all chain stores and from all independent stores having an annual turnover of \$30,000 or more in 1930 (\$20,000 or more in the case of food stores and country general stores). On the basis of the returns from these stores, which transacted in 1930 about 70 per cent of all retail trade, estimates of total commodity retail trade in each of the years from 1931 to 1933 have been completed. It is the intention to add in due course an annual survey of financial institutions.

[[The Dominion Bureau of Statistics]]

A monthly index number of retail sales, based on returns from 2,500 units of chain and departmental stores, is published by the Branch, also monthly records of motor car sales and of the financing of motor car sales.

Prices and Cost of Living.—The important subject of prices is dealt with by a section of the Internal Trade Branch. Weekly, monthly and annual index numbers are constructed and published of wholesale prices (567 commodities) and of prices of securities (for 121 common stocks and 23 mining issues), together with monthly index numbers of retail prices and cost of living (245 series of foods, fuel, clothing, lighting, rentals, household supplies and sundries), and of interest and foreign exchange rates. (In the cost of living aspect the Branch works closely with the Department of Labour.) Annual index numbers of prices of miscellaneous public



services (hospital costs; street-car fares; gas, electric light and telephone charges; etc.), and of import and export valuations are also issued. A special price index of farm purchases is under construction, to supply for the agricultural classes materials similar to those which the cost of living figures furnish

for urban communities. The Branch undertakes the analysis of the housing and rentals materials of the census.

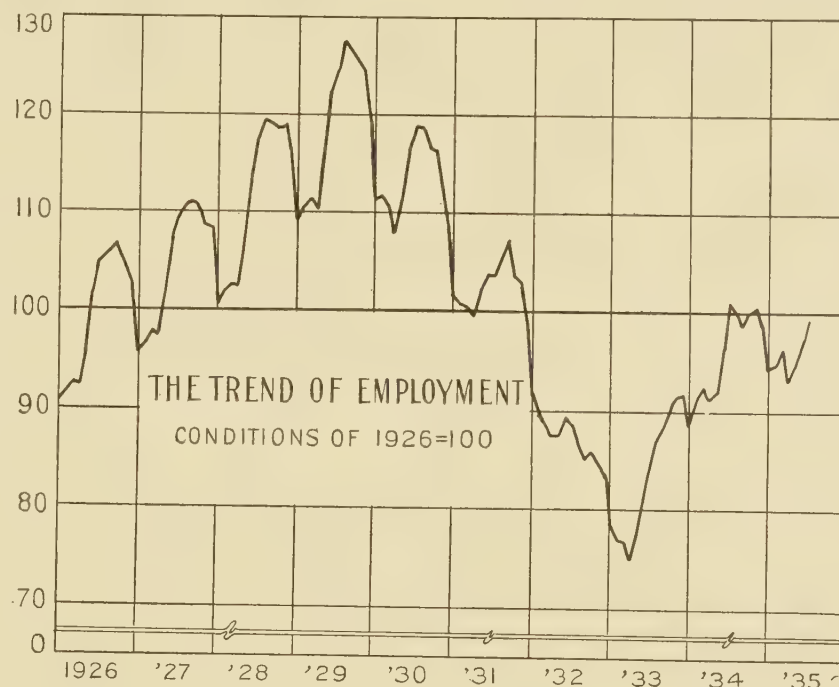
Balance of International Payments.—Among the other activities of the Internal Trade Branch are the preparation of a report on Canada's balance of international payments, including the estimation of the various *invisible* items of international trade. An attempt is made to segregate these transactions as between Canada-United Kingdom and Canada-United States. Coupled with this is a special annual report on the value of the tourist trade, both as regards outsiders touring in Canada and Canadians touring elsewhere. The annual inward or outward movement of capital is estimated in a special report.

Corporation records (involving a study of branch, subsidiary, affiliated and controlled plants) are also maintained in the Internal Trade Branch; these were found

of great use in the price spreads investigation made by the Government in 1934-35. A monthly record of the sale and purchase of securities between Canada and other countries is maintained, differentiating the United Kingdom and the United States.

EMPLOYMENT AND LABOUR STATISTICS

An Employment Statistics Division in the General Statistics Branch compiles and publishes each month a bulletin on the employment situation based upon monthly reports from some 9,000 business concerns, the list including as nearly as possible all employing fifteen persons or more. This study, which has been made for each month since the beginning of 1921, has assisted in providing a statistical basis for numerous practical measures. In connection with this investigation, figures of building permits granted by the authorities in 61 leading cities of Canada are compiled and published monthly.



Labour statistics in so far as they are originated in the Bureau are largely a cross-section of the Industrial Census—joined, of course, to the materials on occupations, earnings and unemployment obtained at the decennial census. An intimate association and partition of work exists by Order in Council between the Bureau and the Department of Labour. Thus, the Department of Labour, an important function of which is the administration of the Industrial Disputes Investigation Act, collects and publishes in the *Labour Gazette* the monthly and annual reports on trade disputes, maintaining co-ordination in matters like the classification of industries and employees with the system established in the Bureau. It also collects and publishes the data and index numbers of rates of wages under a similar arrangement and is the general repository of information as to industrial agreements, while the Bureau confines its reports to earnings, hours operated, cost of living, etc. The Department of

Labour also publishes annual reports, partially statistical in character, on trade union organization and associations of employers in Canada.

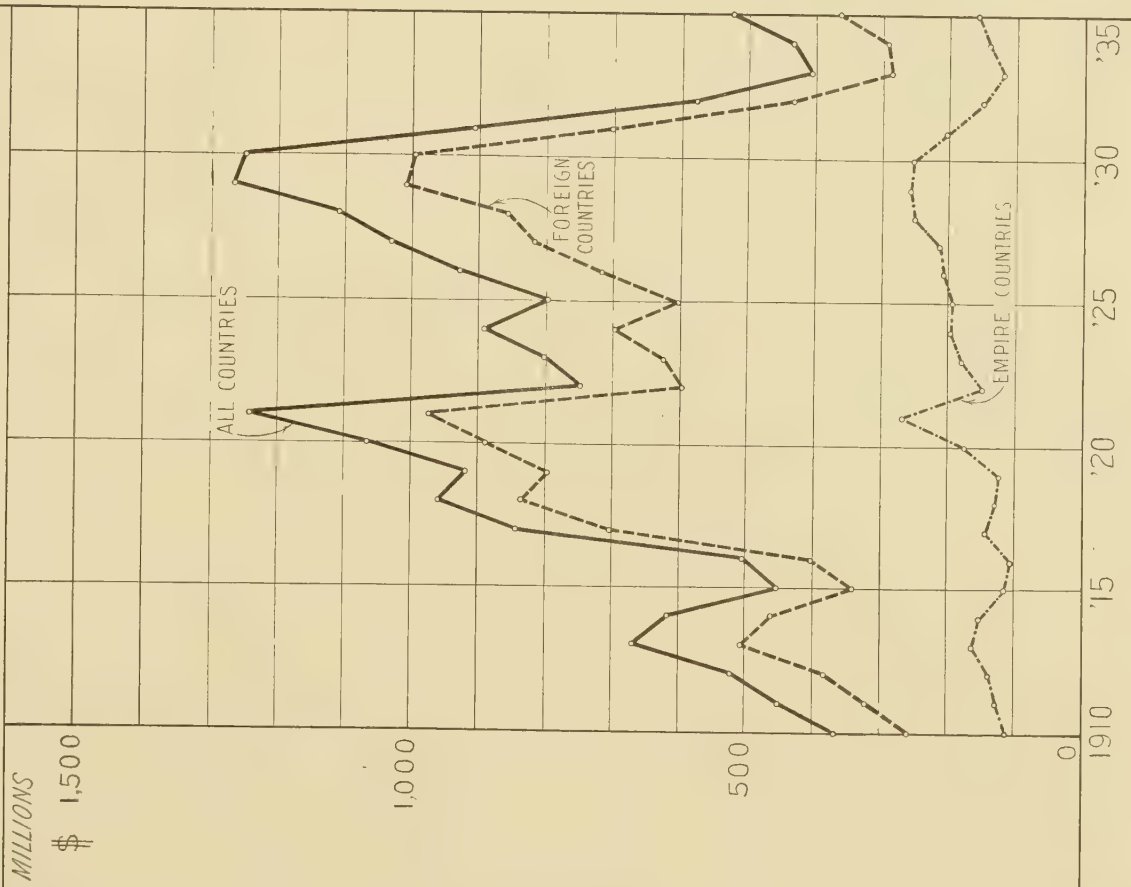
THE EXTERNAL TRADE BRANCH

The External Trade Branch compiles and publishes in great detail the external trade statistics of the Dominion, both monthly and quarterly as well as annually, and also keeps in close touch with the trade statistics of Empire and foreign countries, in which connection it answers innumerable inquiries from the public regarding existing trade and potential openings for trade. The primary data for trade statistics (imports and exports for each commodity by countries) are collected and compiled by the Customs Division of the Department of National Revenue and transferred monthly to the Bureau under Sections 22-25 (see p. 71) of the Statistics Act for analysis, tabulation and publication, an annual conference being held with the Customs Division for the discussion of new items and other changes in the trade classification. (The trade classification includes 2,215 import and 623 export items.) The scheme of publication is as follows: First, a monthly ten-page trade summary includes, besides the leading trade items for the month, those for the then latest twelve-month period, and comparative figures for the preceding twelve-month period; thus comparative figures for the latest and the preceding twelve-month periods are continuously available.

Besides the regular monthly reports, the Branch issues at a small charge about thirty-three advance mimeographed bulletins (1-3 pages each) on trade in particular commodities or groups of commodities considered important by manufacturers and others interested in particular lines of business. Numerous special compilations are also prepared for individual subscribers each month and, on occasion, in response to particular inquiries. A quarterly trade report gives data by countries for the entire trade classification.

Three annual reports are issued: (1) A report for the calendar year, consisting of a reprint with modifications of the quarterly report, enables trade statistics to be co-ordinated with the statistics of production, which are all on a calendar year basis. (2) A so-called "Condensed Preliminary Annual Report on the Trade of Canada", issued about June for the preceding fiscal year, contains the more important items by countries, together with an extended textual review of the trade of the Dominion, which analyses the types of commodities by the countries with which trade is carried on, the proportion of Canada's trade with such countries to their total trade, comparisons of volume and value, the relation between trade in raw and that in manufactured products, etc., while the tables segregate the items of Canada's trade with each country. (3) The final annual trade report issued in December is one of the

IMPORTS INTO CANADA 1910-1935



EXPORTS FROM CANADA 1910-1935



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most complete and elaborate trade publications put out by any country—giving figures for each article in full detail, carrying the items over a five-year period, analysing the current trade trend from numerous important angles (particularly noteworthy are the comparison of the value and volume of trade and the grouping of the commodities by component material, purpose, and origin and degree of manufacture), and giving a historical review of total trade by leading countries back to Confederation.

Special publications are also from time to time issued by the Branch. Particularly notable among these are six special reports on intra-Imperial trade prepared for the Imperial Economic Conference in 1932. Others include: Trade of Canada with Pacific Countries; Canada-Belgium Trade; Canada's Imports of Commodities not Produced in Canada, 1929-1933; Canada-Austria Trade; and Canada-Germany Trade. Other similar studies are in preparation.

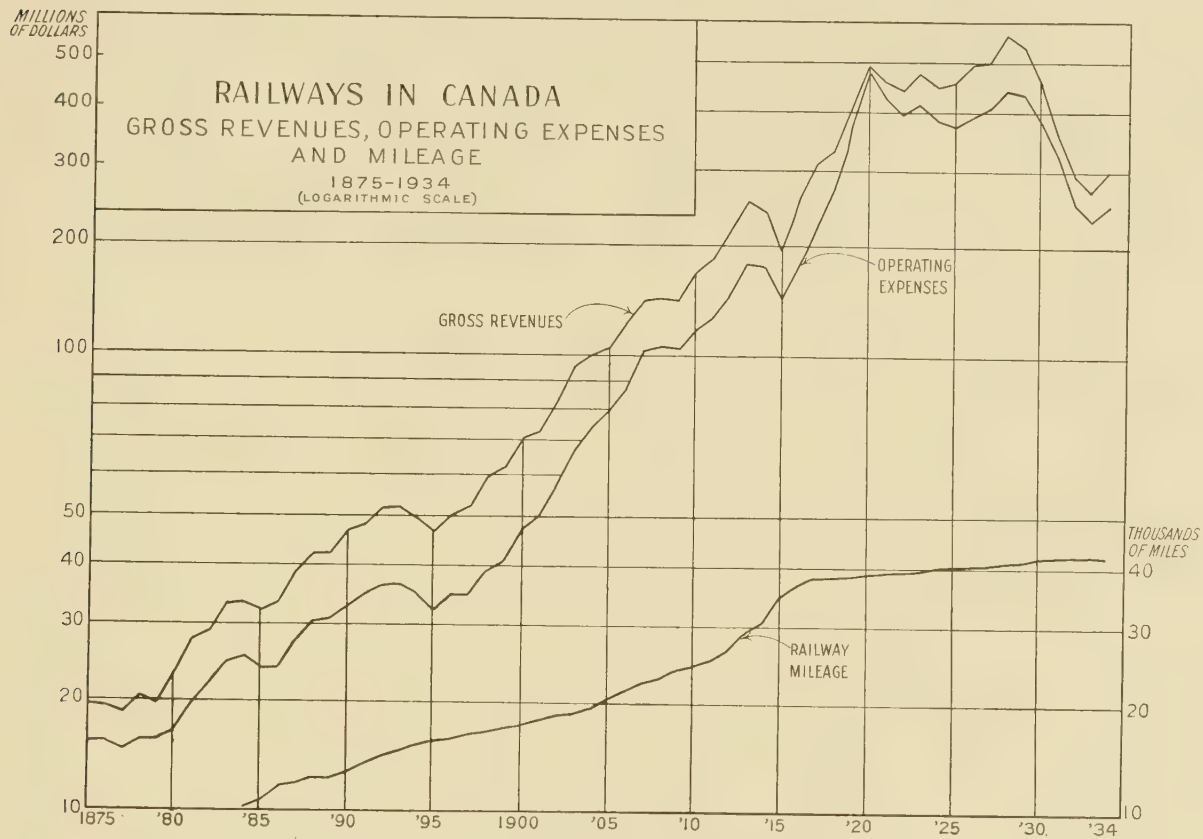
The reorganization of trade statistics under the Bureau, which was one of the first tasks undertaken on its foundation, cleared up a confusing situation, as the Customs Division, the Department of Trade and Commerce, and the former Census and Statistics Office (which previously published the *Canada Year Book*) had, up to that time, issued trade statistics on an elaborate basis; there was, in consequence, much overlapping as well as lack of analysis from a comprehensive viewpoint.

THE TRANSPORTATION AND PUBLIC UTILITIES BRANCH

The Transportation and Public Utilities Branch collects and compiles the statistics of the transportation and communication services of the Dominion, as well as those of central electric stations. Canadian railway statistics date from as early as 1876; they were greatly extended in scope in 1908. In 1918 the Branch was transferred to the Bureau from the Department of Railways and Canals, since when further extensions and improvements have been effected. The present annual report of the Bureau on railway statistics is particularly designed to serve the needs of the Board of Railway Commissioners for Canada (the Railway Act providing that the reports required by the Board from transportation companies shall be made through the Dominion Statistician). Monthly statistics on railway revenues and expenditures have been recently instituted, also a scheme of monthly railway traffic statistics as indicative of interprovincial trade, seventy-six leading commodities being listed and the tonnages of each loaded and unloaded by provinces being recorded. Weekly statistics of car-loadings of revenue freight, in respect of eleven chief classes of commodities transported, are also collected. Both this and the preceding record are of great significance as reflecting the trend of general business. Elaborate analyses of freight and passenger traffic are incidentally made from the special point of view of

[Transportation and Public Utilities Branch]

the railways themselves. The Branch also compiles and issues annual reports on the statistics of electric railway, express, telephone and telegraph companies.



On water transportation there are monthly and annual reports on the statistics of traffic passing through the canals of Canada, the data being collected for the Bureau by officers of the Department of Railways and Canals. A census of boats on the Canadian register has been taken, and a summary made of all river, harbour and other capital aids to navigation.

Central electric stations are the chief source of power in Canada, especially in the coal-less provinces of Ontario and Quebec, which are the industrial centre of the Dominion. The Transportation and Public Utilities Branch publishes an annual report on central electric stations in Canada (collaborating with the Hydro-Electric Power Commission of Ontario and with other provincial bodies, as well as with the Water Power and Hydrometric Service of the Department of the Interior), also annual index numbers of electric light rates and reports on the use of electrical energy in Canadian industries. A monthly figure of electrical energy generated is issued.

Two sections of the transportation field await final organization: There are no statistics of Canadian water carriers similar to those that exist for the railways; a

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final purview of the statistics of navigation is thereby rendered difficult, though clearances in and out of Canadian ports are recorded by the Customs Division of the Department of National Revenue. Similarly, though the Bureau issues an annual report on the statistics of highway mileage and the registration of motor vehicles, based on materials obtained from provincial highway services, no scheme of recording the carriage of freight and passengers by trucks, motor buses and other common or private carriers on highways has been set up, notwithstanding the great importance which the subject has in recent years acquired for general transportation. Plans in detail have been prepared and discussed with Provincial Governments.

THE PUBLIC FINANCE BRANCH

“Public Finance” in Canada includes Dominion, provincial, and municipal finance, for each of which comparable statistics should be available as regards revenues, expenditures, assets and liabilities. As the administrative systems of the Dominion and the provinces are each *sui generis*, and, moreover, employ methods of accounting which have been conceived in each case independently, governmental accounts as published differ widely in terminology and set-up. Municipal legislation, again, is under the jurisdiction of the provinces and differs considerably between provinces; furthermore, no uniform system of accounting exists even within the confines of a single province. The Bureau began its work in this field in 1921 by drawing up a standard classification and method of reporting, (*a*) for provincial finance, and (*b*) for the different types of municipalities. In the provincial field a partial success was achieved, and in 1933 a conference between the Bureau, the Provincial Treasury Departments, and the Dominion Department of Finance agreed upon a definitive set of schedules as the basis for future compilations, the first annual report under the new system being issued in 1935. In municipal statistics the Bureau collects statistics direct from certain urban municipalities, but it is proposed that it should ultimately join with the provincial municipal services in a scheme under which the municipalities will report to the respective Provincial Governments on standard forms, which will be available for both executive and statistical requirements. Bulletins summarizing the assessment valuations of all municipalities and their bonded indebtedness, as reported to Provincial Governments, are published by the Bureau.

In 1924 the Branch instituted annual and monthly personnel statistics of the various Departments in the Civil Service of Canada, in which detailed analyses are made as between the different classes of employees, salaries, etc.

THE EDUCATION STATISTICS BRANCH

The Education Statistics Branch of the Bureau was founded in 1919 in consequence of the generally unsatisfactory character of Canadian education statistics and of the incomparability of the statistics collected in the various provinces (education according to the B.N.A. Act being under provincial administration), which had impelled the teachers' organizations of the country to memorialize the Dominion Government on the matter. A plan was drawn up and a meeting arranged with the educational authorities of the different provinces in October, 1920 (see *Report of Dominion-Provincial Conference on Education Statistics, 1920*), since which time an annual "Survey of Education" has been issued by the Bureau in each year. It covers such features as enrolment, attendance, teachers, accommodation, expenditures, etc., of all provincially-controlled schools of whatever class. In certain provinces, the data are forwarded to the Bureau in the form of the original teachers' reports, while in others the reports are compiled in the provincial Departments of Education and the totals supplied to the Bureau according to an agreed scheme of tabulation. Supplementing these materials, the Bureau collects directly the statistics of private schools and of universities and colleges throughout the country, so that its purview of education is comprehensive. In addition, the Branch carries out a biennial survey of Canadian libraries, including public, university, college, professional school, business, technical society, and government libraries, as well as of schools for the training of librarians. It keeps closely in touch with the educational press and with teachers' organizations throughout the Dominion.

Altogether, the enrolment in Canadian educational institutions as recorded by the Bureau in a typical year is 2,500,000, and the total cost of the support of schools, colleges and universities exceeds \$175,000,000.

The population schedules of the decennial census contain a rubric on school attendance as well as one on literacy (ability to read and write). The former is used as a check by the Education Statistics Branch, while the latter is made the subject of a special study in the Branch dealing with educational backgrounds and environment; the results being issued in a special census bulletin.

SOCIAL STATISTICS

All statistics are, in a broad sense, *social* statistics. In view, however, of the clear differentiation of economics among the social sciences, a distinction is often loosely made between economic and social statistics. Throughout the Bureau of Statistics, the principle has been adopted of setting up separate branches or sections on subjects important in themselves and requiring distinctive treatment. Among

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such branches, in addition to the census, those on Vital Statistics, Migration and Education are definitely *social* in character. In many countries, also, "labour statistics" is used as a term almost synonymous with social statistics.

In the Dominion Bureau of Statistics, the Division of Census Analysis, which is chiefly concerned with the analysis and interpretation of the data collected at the census and through vital and migration statistics, is regarded as supplying the main backgrounds of social statistics. In particular, it is its duty to interpret the data of the census in such a way as to be directly useful to the Government in the formulation of social policies. The preparation of census monographs, as already described, is under its immediate direction. A notable recent report of this division involved the establishment, on the basis of census and employment data, of the trend of employment in Canada from 1921 to 1934, and was used as the statistical foundation of the Unemployment Insurance Scheme brought before Parliament in 1935. In addition to this division, however, there are two other branches in the Bureau producing statistics which are primarily social in character, namely, those of Criminal Statistics and the Census of Institutions.

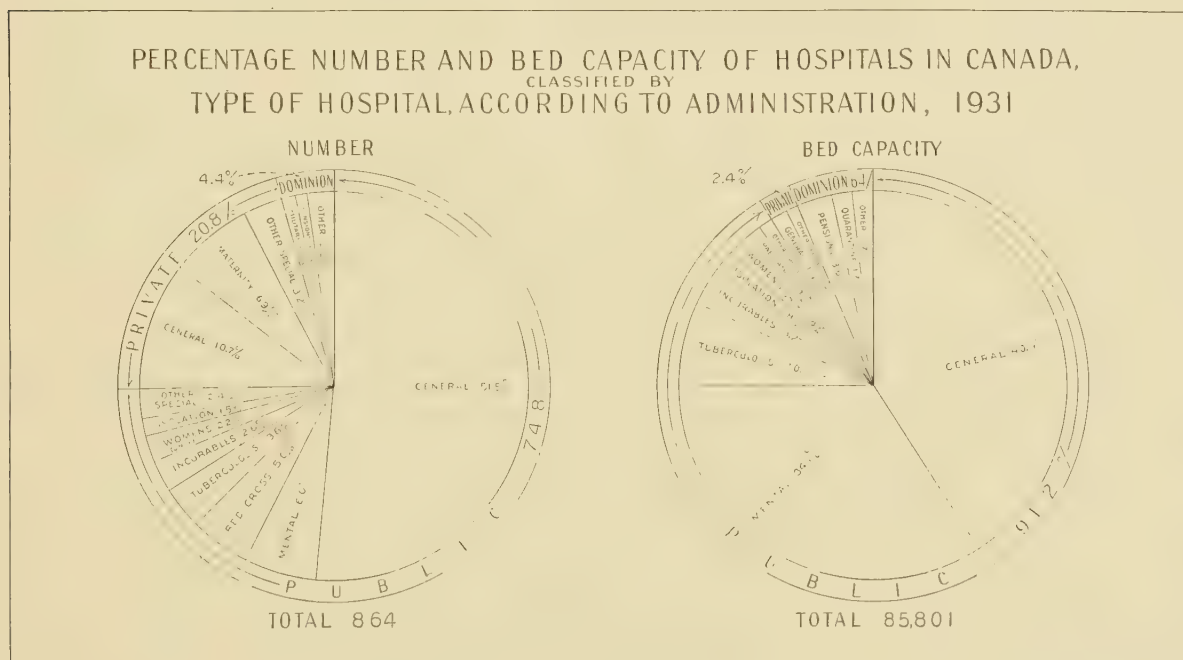
THE CRIMINAL STATISTICS BRANCH

The Criminal Statistics Branch carries on the work of one of the older branches of Canadian statistics, the criminal statistics of the Dominion dating from 1876, so that its annual report now contains historical tables of great interest to students of penology, covering as they do a period of nearly sixty years. Statistics are collected from the courts and other sources (see Sections 28-32 of the Statistics Act, p. 72) and compiled for each class of indictable and non-indictable offences, and for the former the age, conjugal condition, educational status, birthplace and religion of each convicted person is obtained for use in relating the criminality of each element in the population to that of the population as a whole. (Summary convictions, it has been found, have increased enormously since the introduction of the motor vehicle, convictions for breaches of traffic regulations being in the latest year 64 per cent of the total.) In the past decade special attention has been given to the provision of adequate statistics of juvenile delinquents, which in the case of major offences are analysed by birthplace, occupation of father, religion, age and sex, and standing at school—all as throwing light upon the causation of juvenile crime and the mentality of juvenile delinquents. Police statistics of cities and towns of 4,000 population and over have been collected by the Branch in the more recent years. No statistics of civil jurisprudence, however, are collected in Canada.

THE CENSUS OF INSTITUTIONS

The Census of Institutions is a comparatively recent feature in the Bureau's organization. In the past generation there has been, in various countries, an increasing tendency toward the introduction of institutional life for considerable numbers of the population, especially for the afflicted, indigent and those undergoing punishment or correction. Further, the modern scientific treatment of the sick necessitates hospitalization in serious cases. The institutions providing for all such cases involve large expenditures of public funds.

In the Census of 1931, therefore, a special survey of institutions in Canada was inaugurated. In the first instance, all inmates of institutions were enumerated as usual on the regular population form. In addition, however, a series of schedules, drawn up in collaboration with Provincial Health and other Departments, were dispatched to the head of each institution, dealing with each inmate and also covering such features of the institution as staff, salaries and wages, equipment, revenues, expenditures, etc. The institutions covered by the Census of Institutions are in four classes: hospitals, mental institutions, charitable and benevolent institutions, and penal and corrective institutions. The first census, taken in 1931, showed 806 hospitals for the sick, 58 mental institutions, 456 charitable and benevolent institutions and 42 penal and corrective institutions as existing. The report will appear as Vol. IX of the Census Report, 1931.



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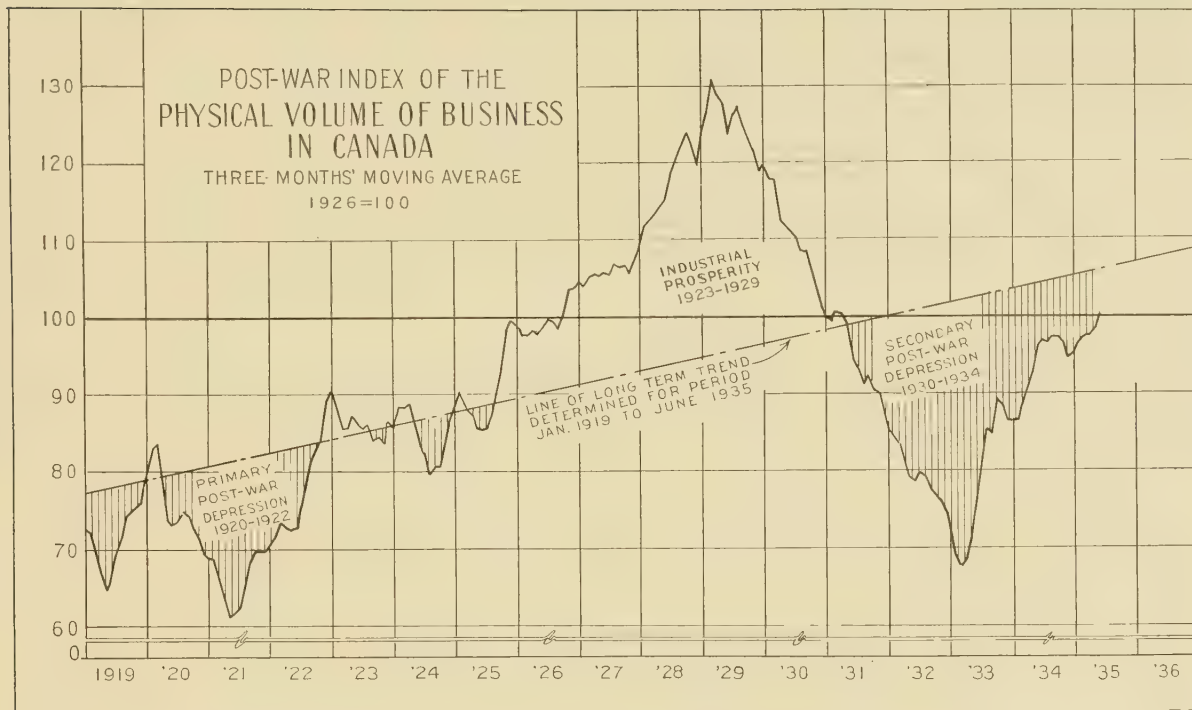
On completion of the Census of 1931, the work of compiling statistics for hospitals, mental and penal institutions was placed on an annual basis, under arrangement with the provincial services for co-operation in reporting and in the setting up of uniform accounting and other methods. The survey of charitable and benevolent institutions will be repeated at five-year intervals, and it is proposed to add a review of the activities of semi-public or private associations and organizations, community chests, etc. The statistics provide a much needed basis for the direction of public policy with regard to four important types of social pathology—physical, mental, economic and moral.

THE GENERAL STATISTICS BRANCH

The functions of the General Statistics Branch have been defined as follows: (*a*) the carrying on of subsidiary inquiries on a variety of subjects of less extent and complexity than those assigned to special branches in the Bureau, but essential to a complete and rounded scheme of Canadian statistics; (*b*) the preparation of statistical digests and abstracts relating to group phenomena as distinguished from phenomena appertaining to a single section; (*c*) the synthesizing of general statistics, and the interpretation of the general economic trend; and (*d*) the bringing of Canadian statistics in a general way into relation with Imperial and world statistics, under the necessary reservations suggested by differing political, economic and statistical systems. The publications of the General Statistics Branch, which illustrate the character of its work, are as follows:—

(*a*) The *Canada Year Book*, as an official compendium of information on the physiography, chronology, demography, production, trade, transportation, finance, labour, administration, and general conditions of Canada—the whole presenting the most salient data relating to the country, against a background of descriptive and interpretative matter designed to bring out their interrelations and significance. Certain chapters in the Year Book are contributed by the different Branches in the Bureau according to plans prescribed by the General Statistics Branch.

(*b*) The *Monthly Review of Business Statistics*, which includes in each month's issue some 1,400 Canadian statistical series of interest to business, together with the more important barometric statistics of the United Kingdom and the United States. The Canadian business situation is interpreted each month and the salient points brought out in the text preceding the tables, as well as by means of several pages of charts, in each issue. The treatment is based upon intensive study of the Canadian business situation from the end of the War to the present time; from time to time supplements are issued summarizing the data for the whole period, the various index numbers and the seasonal and long-term variations being calculated according to



The pronounced recovery in business operations since the low point of the depression was reached is indicated in the chart above. About one-half of the decline of the four years culminating in March, 1933, was counterbalanced by the advance of the last thirty months. The index dropped from 132 in March, 1929, to 68 in March, 1933, and then recovered to 102 in July last. The recent position was higher than at any time since the later months of 1930. The index of the physical volume of business is based on forty-five weighted factors comprising mineral production, manufacturing, construction, electric power and distribution.

approved statistical methods. The Business Statistics Division of the Branch also prepares monthly reports on bank debits to individual accounts at the clearing-house centres of Canada, and on commercial failures, which are required to be reported to the Bureau under the Dominion Bankruptcy Act. Monthly figures on employment and on the issuing of building permits are also published, as has been previously mentioned in this review.

(c) The Official Handbook of Canada, which, within the space of less than 200 pages, constitutes an up-to-date popular illustrated treatment of the general position of Canada, the material being mainly obtained from the Branches of the Bureau but to some extent from other Departments of the Government. The Handbook is issued in the opening week of each year; over 18,000 copies of the latest issue (*Canada 1935*) have been sold to the public as at Aug. 1, 1935.

Other reports of a general nature included: a periodical report on the National Wealth and Income; an annual report on Divorce; and an annual report on the Control and Sale of Liquor in Canada under the different provincial systems that prevail.

The Dominion Bureau of Statistics

The work of the Employment Statistics Division of the General Statistics Branch has already been referred to under the heading "Employment and Labour Statistics", (see p. 49).

THE ADMINISTRATION BRANCH

The Administration Branch of the Bureau of Statistics is the centre of the organization. In the first place, it is concerned with the administration of the personnel of the Bureau (which at maximum employment numbers upwards of 1,100 persons). Requisitions and supplies, the distribution of publications, the rota-printing, photostat and mimeographing services, central stenographic pool, central files, etc., are managed by this Branch. Notes on these various activities follow:—

Allocation and Control of Staff.—The permanent staff of the Bureau is approximately 250, but a floating staff of temporaries brings the number continuously employed to about 350. This is considerably exceeded during the years in which the compilations of the decennial and quinquennial censuses are under way. In 1931, the peak number of extra census clerks taken on was 850, while for the quinquennial census about one-third of that number are usually employed; these staffs continuously decline after the first year although the Civil Service Act permits their retention for three years.

Central Services.—Correspondence of a general nature is centrally filed, only correspondence relating to the collection of specific data being filed in the respective branches. On an average, 150 inquiries from the public are received daily. A central stenographic pool is maintained to meet exceptional demands in the several branches. There are also central batteries of adding, computing and tabulating machines, to which overflow work in the branches is relayed. All stationery and other supplies are handled through a central depot, on requisition by the Chiefs of branches. The making of charts and diagrams for the various branches is carried out by a central staff under the supervision of an expert draughtsman.

Printing.—All printed reports of the Bureau are printed in the Public Printing and Stationery Department. The Bureau, however, as has been noted, issues a large number of preliminary and other publications, of an urgent or interim character, to handle which the Printing Section has been set up, equipped with 2 Rota-prints, 3 Gestetners, 1 Rectigraph, 1 Multigraph, with assembling table, stitching and folding machines, and 2 addressographs, with 1 graphotype. This Section is under the supervision of an expert operator with four assistants.

Distribution and Sale of Publications.—The distribution and sale of the printed publications of the Bureau are effected through the King's Printer, but the

Bureau handles direct the distribution of its mimeographed, multigraphed and rotaprinted documents. Altogether, over 400 separate mailing and subscription lists are maintained. Originally, the reports of the Bureau were supplied free on request and on assurance of *bona fides*, the *raison d'être* of such materials being held to be educational and for the promotion of Canadian interests. Recently, a charge system has been introduced, the receipts from which during the first year of partial operation yielded approximately \$12,000—a sum which it is thought will ultimately be considerably exceeded. The price in most cases is designed to cover only cost of materials for printing, and the wages of the printing staff.

Translation.—The Translation Service of the Bureau, connected with the Administration Branch, constitutes an important and increasing activity, inasmuch as publications of the Bureau are printed both in French and English. Translations from various other languages are also made for the use of the Bureau.

Library.—The Library of the Bureau contains the statistical publications of practically every country in the world, and is the only specialized library of this kind in the Dominion. Its collection to date numbers some 65,000 volumes, and 60,000 pamphlets and reports, while in the neighbourhood of 20,000 reports and periodicals pass under its supervision each year. In order to prevent overlapping with other local libraries, the Bureau limits its collection to two classes of materials, first, as above stated, to publications of statistical content, and secondly, to works on statistical methodology. By arrangement with the Parliamentary Library, other departmental libraries and the Public Library of Ottawa, a card index is maintained of all locally available works of a general sociological and economic character. The Library loans about 22,000 documents annually and is used by university professors and students of economic research from widely separate points in Canada, the United States and other countries. Forty-nine such persons, outside the Bureau itself, used the Library (most of them for extended periods of time) during the latest fiscal year.

Publicity.—In order that the more important facts and data issued by the Bureau from day to day may reach the public promptly and in readable form, the Bureau forwards to the 200 leading newspapers of Canada a publication termed the "Daily Bulletin", consisting of notes and excerpts from reports being currently issued. These notes are widely reproduced in the press throughout the Dominion, and in this way a useful nexus is established between the Bureau and the general public. A weekly edition of this bulletin is issued, mainly to the rural press, to which is prefixed a special summary of the more important barometric indexes of the week. The Bureau also supplies daily to the Radio Commission of Canada

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material for a two-minute broadcast entitled "A Fact a Day About Canada". These broadcasts are collected at the end of each month in a bulletin which is largely subscribed to by teachers and publicists.

Appropriation.—The annual appropriation of the Bureau ordinarily includes about \$325,000 for salaries of the permanent staff, with a further vote of \$150,000 for "contingencies", the latter providing for temporary employees, supplies, travelling expenses, and miscellaneous expenditures. In addition, a vote of \$105,000 is granted annually for the printing of reports. In the census years and throughout the period of census compilation an extra allowance is made; in 1931-32 this amounted to \$2,277,000; in 1932-33 to \$390,000; and in 1933-34 to \$315,000.

Accounting.—The accounting office of the Bureau employs one permanent accountant with one assistant. Several temporary assistants are engaged during the years in which outside and inside census staffs are employed, when, as already stated, the payment of several thousand Census Commissioners and enumerators engaged in the field work, and of several hundred compiling clerks for a considerable period at Ottawa, must be provided for. In addition to the accounts proper, the Accountant's Office maintains a cost-accounting system, whereby it is possible to ascertain the cost to the Bureau of carrying on any given service or piece of work.

CONCLUSION

While primarily serving the Government, the Bureau is not unmindful of the fact that in a democratic community every citizen is a part of the Government and should be well informed regarding the social and economic conditions of his country as a whole, as well as respecting that bit of it which comes under his own eyes. Accordingly, the Bureau furnishes to all applicants answers to all manner of questions on all sorts of topics, either directly or through the columns of the press. In particular, it supplies to business men of all classes information regarding business conditions, such as the production, imports, exports, prices, stocks, etc., of all kinds of commodities, in order to enable them to direct their operations more effectively to their own greater advantage and to the greater advantage of Canada. Arrangements have been completed whereby special tabulations may be made, or other investigations carried out at a fee based only on the extra clerical costs to the Bureau.

The success of the Dominion Bureau of Statistics in collecting and compiling for public use information relative to Canada is generally recognized. It is carrying on for Canada statistical services recommended by the Macmillan Commission in the United Kingdom some years ago, looking to that "completer information" which, in the words of the Commission, "when placed at the disposal of those

responsible for deciding policy, may prove to be an indispensable preliminary to their being able to work out practical methods of management". The Commission adds: "To put on a more scientific basis our acquaintance with the fundamental facts and trends of our economic life, and to replace empiricism by ordered knowledge, might prove to be the greatest step forward that it lies within our power to take towards raising the economic well-being of our country to the level which the technique of production would allow, provided only that our machinery for collective action was such as to facilitate the whole of our productive resources being brought into fruitful activity".

APPENDICES

APPENDIX I



CHAPTER 190 [R.S.C., 1927].

An Act respecting the Dominion Bureau of Statistics.

SHORT TITLE.

1. This Act may be cited as the Statistics Act. 1918, c. 43, s. 1. Short title.

INTERPRETATION.

2. In this Act, unless the context otherwise requires, Definitions.
- (a) "Bureau" means the Dominion Bureau of Statistics; "Bureau."
- (b) "Minister" means the Minister of Trade and Commerce; "Minister."
- (c) "regulation" means any regulation made under the provisions of this Act or any order of the Governor in Council made under the authority of this Act; "Regulation."
- (d) "transportation company" means any railway, telegraph, telephone and express company and any carrier by water. 1918, c. 43, s. 2. "Transportation company."

GENERAL.

3. There shall be a bureau under the Minister of Trade and Commerce, to be called the Dominion Bureau of Statistics, the duties of which shall be Dominion Bureau of Statistics.
- (a) to collect, abstract, compile and publish statistical information relative to the commercial, industrial, social, economic and general activities and condition of the people; To collect statistical information.
- (b) to collaborate with all other departments of the Government in the compilation and publication of statistical records of administration according to the regulations; To collaborate with other Government departments.
- (c) to take the census of the Dominion as hereinafter provided. 1918, c. 43, s. 3. To take the census.
4. The Governor in Council may appoint an officer to be called the Dominion Statistician, who shall hold office during pleasure, whose duties shall be, under the direction of the Minister, to prepare all schedules, forms, and instructions, and generally to supervise and control the Bureau, and to report annually to the Minister with regard to the work of the Bureau during the preceding year. Dominion Statistician, appointment and duties.
2. Such other officers, clerks and employees as are necessary for the proper conduct of the business of the Bureau may be appointed in the manner authorized by law, and shall hold office during pleasure. 1918, c. 43, s. 4; 1918, c. 12. Officials.
5. The Minister may employ from time to time, in the manner authorized by law, such commissioners, enumerators, agents or persons as are necessary to collect statistics and information for the Bureau relating to such industries and affairs of the country as he deems useful and in the public interest, and the duties of such agents or persons shall be such as the Minister determines. 1918, c. 43, s. 5. Commissioners, enumerators, and agents.

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Oath of office.	<p>6. Every officer, census commissioner, enumerator, agent and other person employed in the execution of any duty under this Act or under any regulation made hereunder, before entering on his duties, shall take and subscribe the following oath:—</p> <p>I,, solemnly swear that I will faithfully and honestly fulfil my duties as, in conformity with the requirements of the Statistics Act and of all proclamations, orders in council and instructions issued in pursuance thereof, and that I will not, without due authority in that behalf, disclose or make known any matter or thing which comes to my knowledge by reason of my employment as such.</p>
Attestation.	<p>2. The oath shall be taken before such person, and returned and recorded in such manner as the Minister prescribes. 1918, c. 43, s. 6.</p>
Rules, regulations and forms.	<p>7. The Minister shall</p> <p>(a) make and prescribe such rules, regulations, instructions, schedules and forms as he deems requisite for conducting the work and business of the Bureau, the collecting of statistics and other information and taking of any census authorized by this Act;</p>
Verification by oath.	<p>(b) prescribe what schedules, returns and information are to be verified by oath, the form of oath to be taken, and shall specify the officers and persons by and before whom the said oaths are to be taken. 1918, c. 43, s. 7.</p>
No discrimination.	<p>8. The Governor in Council shall not, nor shall the Minister, in the execution of the powers conferred by this Act, discriminate between individuals or companies to the prejudice of any such individual or company. 1918, c. 43, s. 8.</p>
Arrangements with provincial governments.	<p>9. The Minister may enter into any arrangement with the government of any province providing for any matter necessary or convenient for the purpose of carrying out or giving effect to this Act, and in particular for all or any of the following matters:—</p> <p>(a) The execution by provincial officers of any power or duty conferred or imposed on any officer under this Act or the regulations;</p> <p>(b) The collection by any provincial department or officer of any statistical or other information required for the purpose of carrying out this Act; and</p> <p>(c) The supplying of statistical information by any provincial department or officer to the Dominion Statistician.</p>
Provincial officers.	<p>2. All provincial officers executing any power or duty conferred or imposed on any officer under this Act or the regulations, in pursuance of any arrangement entered into under this section, shall, for the purposes of the execution of that power or duty, be deemed to be officers under this Act.</p>
Schedules that may be sent post free.	<p>3. All schedules or forms returned to a provincial department in pursuance of any arrangement entered into under this section shall be free of Canada postage, under such regulations as are from time to time made in that respect by the Governor in Council, and any person violating any such regulation shall be guilty of an offence and liable upon summary conviction to the penalties hereinafter provided. 1918, c. 43, s. 9; 1921, c. 51, s. 1.</p>
Regulations.	
Penalty.	
Access to public records.	<p>10. Every person who has the custody or charge of any provincial, municipal or other public records or documents, or of any records or documents of any corporation, from which information sought in respect of the objects of this Act can be obtained, or which would aid in the completion or correction thereof, shall grant to any census officer, commissioner, enumerator, agent or other person deputed for that purpose by the Dominion Statistician, access thereto for the obtaining of such information therefrom. 1918, c. 43, s. 10.</p>
Inquiries under oath.	<p>11. The Minister may, by special letter of instruction, direct any officer, census commissioner or other person employed in the execution of this Act, to make inquiry under oath as to any matter connected with the taking of the census or the collection of statistics or other information, or the ascertaining or correction of any supposed defect or inaccuracy therein; and such officer, census commissioner or other person shall then have the same power as is vested in any court of justice,</p>

of summoning any person, of enforcing his attendance and of requiring and compelling him to give evidence on oath, whether orally or in writing, and to produce such documents and things as such officer, census commissioner or other person deems requisite to the full investigation of such matter or matters. 1918, c. 43, s. 11.

12. (a) Any letter purporting to be signed by the Minister or the Dominion Statistician, or by any other person thereunto authorized by the Governor in Council, and notifying any appointment or removal of or setting forth any instructions to any person employed in the execution of this Act; Evidence of appointment, removal or instructions.
- (b) Any letter signed by any officer, census commissioner, or other person thereunto duly authorized, notifying any appointment or removal of or setting forth any instructions to any person employed under the superintendence of the signer thereof;
- shall be, respectively, *prima facie* evidence of such appointment, removal or instructions, and that such letter was signed and addressed as it purports to be. 1918, c. 43, s. 12.

13. Any document or paper, written or printed, purporting to be a form authorized for use in the taking of census, or the collection of statistics or other information, or to set forth any instructions relative thereto, which is produced by any person employed in the execution of this Act, as being such form or as setting forth such instructions, shall be presumed to have been supplied by the proper authority to the person so producing it, and shall be *prima facie* evidence of all instructions therein set forth. 1918, c. 43, s. 13. Presumption.

14. The Minister shall, subject to the approval of the Governor in Council, cause to be prepared one or more tables setting forth the rates of remuneration or allowances for the several census commissioners, enumerators, agents and other persons employed in the execution of this Act, which may be a fixed sum, a rate per diem, or a scale of fees, together with allowances for expenses. Remuneration.

2. Such remuneration or allowances and all expenses incurred in carrying this Act into effect shall be paid out of such moneys as are provided by Parliament for that purpose. Voted by Parliament.

3. No remuneration or allowance shall be paid to any person for any service performed in connection with this Act until the service required of such person has been faithfully and entirely performed. 1918, c. 43, s. 14. Condition of payment.

SECRECY.

15. No individual return, and no part of an individual return, made, and no answer to any question put, for the purposes of this Act, except as hereinafter set forth, shall, without the previous consent in writing of the person or of the owner for the time being of the undertaking in relation to which the return or answer was made or given, be published, nor, except for the purposes of a prosecution under this Act, shall any person not engaged in connection with the census be permitted to see any such individual return or any such part of any individual return. No individual return to be published or divulged.

2. No report, summary of statistics or other publication under this Act, except as aforesaid, shall contain any of the particulars comprised in any individual return so arranged as to enable any person to identify any particulars so published as being particulars relating to any individual person or business. 1918, c. 43, s. 15; 1919, c. 8, s. 1. No report to reveal individual particulars.

CENSUS OF POPULATION AND AGRICULTURE.

16. The census of population and agriculture of Canada shall be taken by the Bureau, under the direction of the Minister, on a date in the month of June in the year one thousand nine hundred and thirty-one, to be fixed by the Governor in Council, and every tenth year thereafter. 1918, c. 43, s. 16. Census of population and agriculture every tenth year.

17. A census of population and agriculture of the provinces of Manitoba, Saskatchewan and Alberta shall be taken by the Bureau, under the direction of the Minister, on a date in the month of June in the year one thousand nine hundred and thirty-six, to be fixed by the Governor in Council, and every tenth year thereafter. 1918, c. 43, s. 17. Manitoba, Saskatchewan and Alberta.

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Census districts.

18. The Governor in Council shall divide the country in respect of which the census is to be taken into census districts, and each census district into subdistricts to correspond respectively, as nearly as may be, with the electoral divisions and subdivisions for the time being, and, in territories not so defined or so situated as to admit of adhering to boundaries already established, into special divisions and subdivisions, for the purpose of the census. 1918, c. 43, s. 18.

Details.

19. Each census of population and agriculture shall be so taken as to ascertain with the utmost possible accuracy for the various territorial divisions of Canada, or of the provinces of Manitoba, Saskatchewan and Alberta as the case may be,

- (a) their population and the classification thereof, as regards name, age, sex, conjugal condition, relation to head of household, nationality, race, education, wage-earnings, religion, profession or occupation and otherwise;
- (b) the number of houses for habitation, whether occupied or vacant, under construction or otherwise, the materials thereof and the number of rooms inhabited;
- (c) the area of occupied land and its value, and its condition thereof as improved for cultivation, in fallow, in forest, unbroken prairie, marsh or waste land, and otherwise; the tenure and acreage of farms and the value of farm buildings and implements;
- (d) the products of farms, with the values of such products and the number and value of domestic animals within the preceding census or calendar year;
- (e) the municipal, educational, charitable, penal and other institutions thereof; and
- (f) such other matters as may be prescribed by the Governor in Council. 1918, c. 43, s. 19

CENSUS OF INDUSTRY—MINES, FISHERIES, FORESTRY, MANUFACTURES, ETC.

Census of industry.

20. A census of the products of industry shall be taken at such intervals as may be determined by the Minister, so as to ascertain with the utmost possible accuracy

- (a) the products of all mines and quarries, fisheries, forests, manufacturing establishments, and the number and kind of buildings and other works of construction used in connection with the same;
- (b) any other trade and business which may be prescribed, with the quantity of real estate and the number and kind of buildings and plant used in connection therewith; and
- (c) any other matters that may be prescribed by the Minister. 1918, c. 43, s. 20.

Schedules of details.

21. The Dominion Statistician shall, under the direction of the Minister, prepare a form for the collection of such data as may be, in his judgment, desirable for the proper presentation of industrial statistics, and the said form shall embody inquiries as to the

- (a) name of person, partnership or corporation;
- (b) kind of goods manufactured or business done;
- (c) capital invested;
- (d) principal stock or raw materials used, and total value thereof;
- (e) gross quantity and value of articles manufactured;
- (f) number of persons employed, distinguished as to sex, adults and children;
- (g) power used or generated;
- (h) total wages and salaries paid;
- (i) number of days on which it was carried on, and any other special matter.

Distribution and returns.

2. The said schedule shall be sent by mail to the owner, operator or manager of each industrial concern with respect to which information is desired, and such owner, operator, or manager, or any other person to whom this schedule or blank form is sent shall answer the inquiries thereon and return the same to the Bureau, properly certified as to its accuracy, not later than the time

prescribed thereon, provided, however, that the Minister may, in his discretion, extend the time for returning the schedules, and provided that when deemed expedient, the Minister may employ agents or other persons for the collection of these statistics. 1918, c. 43, s. 21.

STATISTICS OF TRADE AND COMMERCE.

- 22.** The Dominion Statistician shall, under the direction of the Minister,
- (a) annually prepare a report on the statistics of commerce and navigation of Canada with foreign countries, which shall, according to the principles and in the manner defined in the regulations,
 - (i) state the kinds, quantities and values of the merchandise entered and cleared coastwise into and from the customs collection ports of Canada,
 - (ii) comprehend all goods, wares and merchandise exported from Canada to other countries,
 - (iii) comprehend all goods, wares and merchandise imported into Canada from other countries,
 - (iv) comprehend all navigation employed in the foreign trade of Canada;
 - (b) prepare and publish monthly reports of the exports and imports of Canada, including the quantities and values of accounts drawn from the warehouse and such other statistics relative to the trade and industry of the country as the Minister may consider expedient.
- 1918, c. 43, ss. 22, 23 and 24.

Statistics of commerce and navigation compiled in annual report.

Contents of annual report.

Monthly reports.

23. The Department of National Revenue shall send to the Dominion Statistician, in such manner and form and at such periods as the Governor in Council may prescribe, returns of imports from and exports to foreign countries arriving at or leaving Canada by water or by rail, and of the navigation employed in the foreign trade of Canada. 1918, c. 43, s. 22.

Returns of imports and exports from customs.

24. The Dominion Statistician shall prepare and make a report annually containing the results of any information collected during the preceding year upon the domestic trade of Canada. 1918, c. 43, s. 25.

Domestic trade.

TRANSPORTATION.

25. Every transportation company shall annually prepare returns in such form as may be prescribed by the Governor in Council with respect to its capital, traffic equipment, working expenditure, and such other information as the Governor in Council may prescribe.

Annual transportation returns.

2. Such returns shall be dated and signed by and attested upon the oath of the secretary or some other chief officer of the company, and shall also be attested upon the oath of the president, or, in his absence, of the vice-president or manager of the company.

Attestation.

3. Such returns shall be made for the period beginning from the date to which the then last yearly returns made by the company extended, or if no such returns have been previously made, from the commencement of the operation of the company and ending with the last day of December in the year for which the returns are to be made or with such other date as the Minister may direct.

Period included.

4. Such returns, dated, signed and attested in manner aforesaid, shall be forwarded by such company to the Dominion Statistician within one month after the first day of February in each year or within one month after any other date directed by the Minister under the last preceding subsection. 1918, c. 43, s. 26; 1919, c. 8, s. 2.

Date of forwarding.

26. Every transportation company shall prepare returns of its traffic monthly, that is to say, from the first to the close of the month inclusive; such returns to be in accordance with the form prepared by the Dominion Statistician and approved by the Minister.

Traffic returns monthly.

2. A copy of such returns, signed by the officer of the company responsible for the correctness of the same shall be forwarded by the company to the Dominion Statistician within seven days from the day to which the said returns have been prepared. 1918, c. 43, s. 27.

Copies forwarded.

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Returns to be
privileged.

27. All returns made in pursuance of any of the provisions of the two sections of this Act immediately preceding this section shall be privileged communications and shall not be evidence in any court whatever, except in any prosecution for,

- (a) default in making such returns in accordance with the requirements of this Act;
- (b) perjury in making any oath required by this Act in connection with such returns;
- (c) forgery of any such return; or
- (d) signing any such return knowing the same to be false. 1918, c. 43, s. 28.

CRIMINAL STATISTICS.

Courts to
furnish criminal
statistics.

28. The clerk of every court or tribunal administering criminal justice, or in case of there being no clerk, the judge or other functionary presiding over such court or tribunal, shall, before the end of October in each year, fill up and transmit to the Dominion Statistician, for the year ending the thirtieth day of September preceding, such schedules as he receives from time to time from the Dominion Statistician relating to the criminal business transacted in such court or tribunal. 1918, c. 43, s. 29.

Wardens
and sheriffs.

29. The warden of every penitentiary and reformatory and the sheriff of every county and district shall, before the end of October in each year, fill up and transmit to the Dominion Statistician, for the year ending the thirtieth day of September preceding, such schedules as he receives from time to time from the Dominion Statistician relating to the prisoners committed to the penitentiary, reformatory or jail. 1918, c. 43, s. 30.

Records.

30. Every person required to transmit any such schedules shall from day to day make and keep entries and records of the particulars to be comprised in such schedules. 1918, c. 43, s. 31.

Copies of
returns.

31. Every officer required to transmit to the Minister of Finance true copies of returns made by justices of the peace shall, before the end of October in each year, transmit to the Minister true copies of all such returns for the year ending the thirtieth day of September last preceding. 1918, c. 43, s. 32.

Pardons.

32. The Secretary of State shall, before the end of October in each year, cause to be filled up and transmitted to the Dominion Statistician such schedules for the year ending the thirtieth day of September last preceding, relative to the cases in which the prerogative of mercy has been exercised, as the Minister may prescribe. 1918, c. 43, s. 33.

GENERAL STATISTICS.

General
statistics.

33. Subject to the direction of the Minister, the Bureau shall collect, abstract and tabulate annually statistics in relation to all or any of the following matters:—

- (a) Population;
- (b) Births, deaths and marriages;
- (c) Immigration and emigration;
- (d) Agriculture;
- (e) Education;
- (f) Public and private finance;
- (g) Any others matters prescribed by the Minister or by the Governor in Council. 1918, c. 43, s. 34.

Special
statistics.

34. The Governor in Council may authorize the Minister to have any special statistical investigation made that is deemed advisable, and may prescribe the manner and by what means such investigation shall be made. 1918, c. 43, s. 35.

OFFENCES AND PENALTIES.

- 35.** Every person employed in the execution of any duty under this Act or any regulation who,
- (a) after having taken the prescribed oath, shall desert from his duty, or wilfully makes any false declaration, statement or return touching any such matter; or Desertion or false declaration.
 - (b) in the pretended performance of his duties thereunder, obtains or seeks to obtain information which he is not duly authorized to obtain; or Unlawful information.
 - (c) shall not keep inviolate the secrecy of the information gathered or entered on the schedules and forms, and who shall, except as allowed by this Act and the regulations, divulge the contents of any schedule or form filled up in pursuance of this Act or any regulation, or any information furnished in pursuance of this Act or any regulation; Improperly divulging information.
- shall be guilty of an offence and shall be liable, on summary conviction, to a penalty not exceeding three hundred dollars and not less than fifty dollars, or to imprisonment for a period not exceeding six months and not less than one month, or to both fine and imprisonment. 1918, c. 43, s. 36. Penalty.
- 36.** Every person who, without lawful excuse,
- (a) refuses or neglects to answer, or wilfully answers falsely, any question requisite for obtaining any information sought in respect of the objects of this Act or any regulation, or pertinent thereto, which has been asked of him by any person employed in the execution of any duty under this Act or any regulation; or Refusal to answer or false answer.
 - (b) refuses or neglects to furnish any information or to fill up to the best of his knowledge and belief any schedule or form which he has been required to fill up, and to return the same when and as required of him under this Act or any regulation, or wilfully gives false information or practises any other deception thereunder; Refusal or neglect, false information or deception.
- shall, for every such refusal or neglect, or false answer or deception, be guilty of an offence and liable, upon summary conviction, to a penalty not exceeding one hundred dollars and not less than twenty dollars, or to imprisonment for a period not exceeding three months and not less than thirty days, or to both fine and imprisonment. 1918, c. 43, s. 37. Penalty.
- 37.** Every person who has the custody or charge of any provincial, municipal or other public records or documents, or of any records or documents of any corporation, from which information sought in respect of the objects of this Act or any regulation can be obtained, or which would aid in the completion or correction thereof, who wilfully or without lawful excuse refuses or neglects to grant access thereto to any census officer, commissioner, enumerator, agent or other person deputed for that purpose by the Dominion Statistician, and every person who wilfully hinders or seeks to prevent or obstruct such access, or otherwise in any way wilfully obstructs or seeks to obstruct any person employed in the execution of any duty under this Act or any regulation, is guilty of an offence and shall be liable, upon summary conviction, to a penalty not exceeding three hundred dollars and not less than fifty dollars, or to imprisonment for a period not exceeding six months and not less than one month, or to both fine and imprisonment. 1918, c. 43, s. 38. Wilful refusal or neglect to grant access to records.

Penalty.
- 38.** The leaving by an enumerator, agent or other person employed in the execution of this Act or any regulation, at any house or part of a house, of any schedule or form purporting to be issued under this Act or any regulation, and having thereon a notice requiring that it be filled up and signed within a stated time by the occupant of such house or part of a house, or in his absence by some other member of the family, shall, as against the occupant, be a sufficient requirement so to fill up and sign the schedule or form, though the occupant is not named in the notice, or personally served therewith. 1918, c. 43, s. 39. Leaving notice at house.
- 39.** The leaving by an enumerator or agent or other person employed in the execution of this Act or any regulation, at the office or other place of business of any person or firm or of any body corporate or politic, or the delivery by registered letter to any person, firm or body cor- Leaving notice at office.

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porate or politic or his or its agent, of any such schedule or form having thereon a notice requiring that it be filled up and signed within a stated time, shall, as against the person or the firm and the members thereof and each of them or the body corporate or politic, be a sufficient requirement to fill up and sign the schedule or form, and if so required in the notice, to mail the schedule or form within a stated time to the Bureau. 1918, c. 43, s. 40.

Application
of fines.

40. Any fine imposed and recovered for any offence under this Act shall belong to His Majesty for the public uses of Canada, but the Minister may authorize the payment of one-half of any such fine to the prosecutor. 1918, c. 43, s. 41.

APPENDIX II

(P.C. 2503)

Certified Copy of a Report of the Committee of the Privy Council, Approved by His Excellency the Governor General on the 12th October, 1918.

The Committee of the Privy Council have had before them a Report, dated 7th October, 1918, from the Minister of Trade and Commerce, submitting that Section 3 of the "Act respecting the Dominion Bureau of Statistics", passed at the last session of Parliament, imposes upon the Bureau the duty of collecting, abstracting, compiling and publishing statistical information relative to the commercial, industrial, social, economic and general activities and condition of the people, and of collaborating with all other Departments of the Government in the compilation and publication of statistical records of administration, and that at the present time statistics are being compiled and published in various Departments and Branches of the public service, resulting in some cases in unnecessary expense and overlapping.

The Minister, therefore, recommends as follows:—

- (1) That all purely statistical investigations relative to the commercial, industrial, social, economic and general activities of the people shall be carried out in the Dominion Bureau of Statistics;
- (2) That with respect to such records of any Department or Branch of the public service as are of a statistical character the Dominion Statistician shall confer with the Head of such Department or Branch with a view to arranging that such records be collected and compiled in so far as possible in conformity with the methods and organization established in the Bureau, the object of such arrangement being the prevention of overlapping, the increase of comparability, and the utilization of Departmental organizations in the best manner for statistical ends;
- (3) That after such conference the Dominion Statistician shall, at as early a date as practicable, prepare a report on the statistical work of each Department or Branch of the public service, with a view to carrying out the above requirements, such report to be submitted to Your Excellency in Council for approval with a view to effecting a permanent arrangement for dealing with the statistics collected by the Government; and
- (4) That to further promote efficiency and economy, all statistical compilations for the Government be carried out in so far as practicable by mechanical appliances, and that for this purpose use be made of the machines installed in the Bureau of Statistics.

The Committee concur in the foregoing recommendations, and submit the same for approval.

(Sgd.) RODOLPHE BOUDREAU,

Clerk of the Privy Council.

[NOTE.—Under the above Regulation, Scoupled with ections 9 and 10 of the Statistics Act, Orders in Council, based on "reports" by the Dominion Statistician after consultation with Dominion and Provincial Departments, have been passed defining arrangements for the collection, compilation and publication of the following statistics: Births, deaths and marriages; migration; grain; dairying; live stock and animal products; mining; fisheries; forestry; railways and communications; central electric power; internal trade; labour.]

APPENDIX III

Publications of the Dominion Bureau of Statistics

ADMINISTRATION—

Annual Report of the Dominion Statistician. *Price 10 cents.*

POPULATION—

I. CENSUS.

Report of the Seventh Census of Canada, 1931, as follows:—

- Vol. I. General—Administrative Report of the Seventh Census followed by a summary of the leading facts of the Censuses of Population and Agriculture, Institutions, Merchandising and Service Establishments, etc., and cross-analyses relating thereto. The Appendix gives a complete bibliography of census materials and reproduces the more salient figures for specified years, chronologically arranged, back to 1605. The volume also contains a series of life tables for the Dominion and each province. *In course of preparation.*
- Vol. II. Population by Local Subdivisions—Conjugal condition, racial origin, religion, birthplace, year of immigration, language, literacy, school attendance, etc. *Price, Cloth \$1.50, Paper \$1.*
- Vol. III. Ages of the People—Classified by sex, conjugal condition, racial origin, religion, birthplace, language, literacy, year of immigration, naturalization, etc. *Price, Cloth \$1, Paper 75 cents.*
- Vol. IV. Birthplace, Racial Origin and Year of Immigration of the People—Cross-classified and classified by conjugal condition, naturalization and citizenship, religion, language, literacy, illiteracy, school attendance. *Price, Cloth \$1, Paper 75 cents.*
- Vol. V. Families, Dwellings and Earnings—Cross-classified by birthplace, conjugal condition, year of immigration, naturalization and citizenship, racial origin, religion, language, literacy, illiteracy, school attendance. *In course of preparation.*
- Vol. VI. Unemployment—Classified by industry, occupation, cause, age, sex, conjugal condition, period of idleness, birthplace, racial origin, year of immigration. *Price, Cloth \$1, Paper 75 cents.*
- Vol. VII. Occupations and Industries—Cross-classified by birthplace, race, age, sex, etc. *In course of preparation.*
- Vol. VIII. Agriculture—agricultural population, farm holdings and land area, tenure, value of farm property and farm products, acreage and yields of crops, live stock, mortgage indebtedness and farm expenses, farm machinery, facilities and roads, co-operative marketing, etc.
- Vol. IX. Institutions—Hospitals for the Sick—Type, bed capacity, facilities, movement of patient population, personnel, capital investment, maintenance, receipts and expenditures, etc.; Mental Hospitals—Movement of patient population and their psychoses, age, nativity, racial origin, economic condition, conjugal condition, environment, literacy, religion, administration and personnel, etc.; Charitable and Benevolent Institutions—by type, movement of population, finances, inmates, age, sex, administration and personnel, etc.; Penitentiaries and Corrective and Reformatory Institutions—by inmates, offences, sentences, age, birthplace, citizenship, racial origin, previous employment, environment, education status, conjugal condition, social habits, overseas service, administrative staff, receipts and expenditures. *In course of preparation.*

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POPULATION—*continued.*

I. CENSUS—*continued.*

Report of the Seventh Census.—concluded.

Vols. X and XI. Merchandising and Service Establishments—Retail merchandise trade cross-classified by kind of business, type of operation, size of business, employees, salaries and wages, capital investment, rent and other operating expenses, credit, etc.; wholesale trade cross-classified by type of establishment, kind of business, operating expenses, etc.; with special reports on retail trade in urban and rural areas, chain stores, food retailing, drug stores, hotels, moving picture theatres, co-operative marketing and purchasing, etc. *In course of preparation.*

Vols. XII and XIII. Census Monographs—Consisting of a series of studies of such outstanding Canadian problems as Growth of Population in Canada; Age Distribution of the Canadian People; Fertility of the Population; Origin, Language, Birthplace and Nationality of the Canadian People; Illiteracy and Educational Status; The Racial and Urban Composition of the Canadian Population since Confederation; The Canadian family—Its Composition, Size and Condition from the Earliest Times; Housing and Rentals; Dependency; The Evolution and Present-Day Significance of the Canadian Occupational Structure; Unemployment; The Population Basis of Agriculture. *In course of preparation.*

Vol. XIV. Statistical Atlas—Maps, charts and diagrams classified under the main headings of the census and accompanied by descriptive textual material. *In course of preparation.*

AGRICULTURE:—

Prince Edward Island—Farm population, areas, tenure, values, facilities and live stock; value of field crops, vegetables, fruits and forest products. *Price, 25 cents.*

Nova Scotia—Farm population, areas, tenure, values, facilities and live stock; value of field crops, vegetables, fruits and forest products. *Price, 25 cents.*

New Brunswick—Farm population, areas, tenure, values, facilities and live stock; value of field crops, vegetables, fruits and forest products. *Price, 25 cents.*

Bulletins of the Seventh Census of Canada, 1931, as follows:—

- (1) POPULATION:—*Preliminary Bulletins.*—(1) to (3) Cities, Towns and Villages. (4) Ontario Villages. (5) Montreal Island. (6) Cities, Towns and Villages. (7) Villages of Manitoba, Saskatchewan and Alberta. (8) Villages of Quebec. (9) Cities, Towns and Villages. (10) Maritime Provinces by Federal Electoral Districts. (11) Ontario by Federal Electoral Districts. (12) Prairie Provinces by Federal Electoral Districts. (13) Quebec by Federal Electoral Districts. (14) British Columbia by Federal Electoral Districts; Yukon and Northwest Territories. (15) Canada by Provinces. (16) Cities replacing Census Bulletins 1, 2, 3, 5 and 6. (17) Towns replacing Bulletins 1, 2, 3, 5, 6 and 9. *Final Bulletins.*—(I) New Brunswick. (II) Nova Scotia. (III) Manitoba. (IV) Canada by Provinces. (V) Saskatchewan. (VI) Alberta. (VII) Quebec. (VIII) Ontario. (IX) British Columbia. (X) Prince Edward Island. (XI) Rural and Urban Population. (XII) Yukon and Northwest Territories. (XIII) Cities, Towns and Villages in Canada, by Provinces. (XIV) Religions, by Provinces. (XV) Birthplaces, by Provinces. (XVI) Ages, by Provinces. (XVII) Conjugal Condition, by Provinces. (XVIII) School Attendance and Literacy, by Provinces. (XIX) Radio Sets in Canada, 1931. (XX) Population of Canada, 1931, by Provinces, Electoral Districts and Subdistricts. (XXI) Population of Canada, 1931, by Religious Denominations. (XXII) Population of Canada, 1931, by Racial Origins. (XXIII) Immigrants by Years of Arrival in Canada. (XXV) Number and Percentage of Single, Married, Widowed or Divorced of the Total Population, by Sex and Provinces, 1911, 1921, and 1931. (XXVI) Age Distribution by Single Years of Age for Canada, by Provinces, 1931. (XXVII) Immigrant Population Classified by Sex, Country of Birth, Province of Residence, Years of Arrival in Canada and Citizenship of the Foreign Born, 1931. (XXVIII) Gainfully Employed Ten Years of Age and Over Classified According to Occupation and Sex for Cities of 30,000 and Over, 1931. (XXIX) Birthplace of the Population Classified According to Nativity of Parents for Canada and Provinces, 1931. (XXX) Canadians and other Nationals. (XXXI) Gainfully Employed Ten Years of Age and Over for Canada and Provinces, 1931. (XXXII)

POPULATION—continued.

I. CENSUS—continued.

Bulletins of the Seventh Census.—continued

Literacy, Language Spoken, and Conjugal Condition of the Population Ten Years of Age and Over, 1931. (XXXIII) Earnings Among Wage-Earners for Canada and Provinces, 1931. (XXXIV) Ages of the Gainfully Employed Ten Years of Age and Over for Canada and Provinces, 1931. (XXXV) Religious Denominations by Racial Origins, 1931. (XXXVI) Gainfully Employed Ten Years of Age and Over by Industry and Sex for Canada and the Provinces and for Cities of 30,000 and Over, 1931. (XXXVII) Age Distribution by Five-Year Age Groups for Cities, Towns and Villages of 5,000 Population and Over, 1931. (XXXVIII) Population of the Municipal Wards of Montreal City by Quinquennial Age Groups, Conjugal Condition, Birthplace, Racial Origin, Religion, School Attendance and Literacy, by Sex, 1931. (XXXIX) Houses and Dwellings. (XL) Population of the Municipal Wards of the Cities of Toronto, Vancouver, Winnipeg, Hamilton, Quebec and Ottawa by Quinquennial Age Groups, Conjugal Condition, Birthplace, Racial Origin, Religion, School Attendance and Literacy, by Sex, Census of 1931. (XLI) Orientals, Ten Years of Age and Over, Gainfully Employed by Race, Occupation and Sex, in British Columbia, 1931. (XLII) Persons Speaking Gaelic. (XLIII) Blind. (XLIV) Deaf Mutes. (XLV) Racial Origins of Gainfully Occupied, Ten Years of Age and Over for Canada and the Provinces. UNEMPLOYMENT AMONG WAGE-EARNERS.—(I) Saint John, N.B.; (II) Winnipeg, Man.; (III) Kitchener, Ont.; (IV) Ottawa, Ont.; (V) Vancouver, B.C.; (VI) Hamilton, Ont.; (VII) Calgary, Alta.; (VIII) Toronto, Ont.; (IX) Montreal, Que.

- (2) CENSUS OF INSTITUTIONS:—*Preliminary Bulletins*.—(1) Mental Institutions. (2) Directory of Hospitals. (3) Penitentiaries. (4) Charitable and Benevolent Institutions. (5) Reformative and Corrective Institutions. (6) Annual Report of Mental Institutions, 1932. (7) Annual Report on Hospitals, 1932. (8) Directory of Hospitals, 1933.

- (3) AGRICULTURE:—*Preliminary Bulletins*.—(1) Number of Occupied Farms, by Counties or Census Divisions, 1931 and 1921; and the Number of Vacant or Abandoned Farms, 1931. Preliminary Acreage:—(1) Prince Edward Island; (2) New Brunswick; (3) Saskatchewan; (4) Manitoba; (5) British Columbia; (6) Ontario; (7) Nova Scotia; (8) Quebec; (9) Alberta; (10) Canada. Live Stock by Counties:—(11) Prince Edward Island; (12) Nova Scotia; (13) New Brunswick; (14) Ontario Preliminary Acreage, by Counties. (15) Manitoba Live Stock, by Census Divisions. (16) New Brunswick Preliminary Acreage, by Counties. (17) Alberta Live Stock, by Census Divisions. (18) Saskatchewan Live Stock, by Census Divisions. (19) British Columbia Live Stock, by Federal Electoral Districts. (20) Quebec Live Stock, by Counties. (21) Ontario Live Stock, by Counties. Farm Holdings, by Size, for Provinces, Counties or Census Divisions. Farm Facilities, by Provinces. Total Number of Farms, Farm Tenure, Farm Acreage, Farm Values, Mortgage Debt and Farm Expenses, by Provinces. Farms Reporting Live Stock, by Kinds and Total Number of Animals Reported for Each Kind. Area and Yield of Field Crops, 1930 and 1920:—(22) Prince Edward Island; (23) Nova Scotia; (24) New Brunswick; (25) Ontario; (26) Quebec. Live Stock on Farms by Provinces. Tenure of Farm Lands, by Provinces, Counties or Census Divisions. Number of Farm Workers, Weeks and Cost of Hired Labour, 1930. Fruit Trees on Farms, by Provinces, 1931 and 1921. Vegetables:—Area in 1931 and Area, Production and Value in 1930, by Provinces. *Final Bulletins*.—ANIMAL PRODUCTS ON FARMS, BY COUNTIES:—(I) Prince Edward Island; (II) Nova Scotia; (III) New Brunswick; (IV) Manitoba; (V) Saskatchewan; (VI) Alberta; (VII) Ontario; (VIII) Quebec; (IX) British Columbia. LIVE STOCK ON FARMS, BY COUNTIES:—(X) Prince Edward Island; (XI) Nova Scotia; (XII) New Brunswick; (XIII) Manitoba; (XIV) Saskatchewan; (XV) Alberta; (XVI) British Columbia; (XVII) Ontario. (XVIII) Live Stock on Farms by Counties, Quebec. (XIX) Tenure, Farm Values, Farm Facilities and Mortgage Debt, 1931, and Farm Expenses for 1930, by Counties or Census Divisions. (XX) Stock Sold Alive, Stock Slaughtered, Young Animals Raised, 1930, and Pure-Bred Live Stock on Farms, 1931, by Counties or Census Divisions. (XXI) Pure-Bred Live Stock on Farms and Elsewhere, 1931. (XXII) Fruit

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POPULATION—concluded.

I. CENSUS—concluded.

Bulletins of the Seventh Census.—Concluded

Trees, 1931, Maple Products, 1931, Fruit Production and Value, 1930. (XXIII) Greenhouse and Hothouse Establishments on Farms and Elsewhere, by Provinces, 1931, 1921. (XXIV) Forest Products of Farms, by Counties or Census Divisions, 1930. (XXV) Condition of Farm Land, by Counties or Census Divisions, 1931. (XXVI) Area of Field Crops, by Counties or Census Divisions, 1931.

II. INTERCENSAL ESTIMATES OF POPULATION.

III. VITAL STATISTICS.

Annual Report on Vital Statistics of Canada by Provinces and Municipalities, *Price, \$1*; Preliminary Annual Report on Vital Statistics of Canada; Preliminary Quarterly Report on Vital Statistics of Canada; Monthly Report of Births, Deaths and Marriages registered in Cities; Report of Conference on Vital Statistics, held June 19-20, 1918; Special Report on Contributory Causes of Death, 1926; Order of Birth in the Registration Area of Canada, 1925; Physicians' Pocket Reference to the International List of Causes of Death; Manual of the International List of Causes of Death, Revision of 1929; Special Report on Mortality in Canada from Cerebral Hæmorrhage and Certain Diseases of the Heart, Arteries and Kidneys, 1921-32; Special Report on Mortality in Canada According to Place of Residence, 1930-32; Special Report on Mortality from Tuberculosis in Canada According to Place of Residence, 1930-32; Special Report on Births in Canada According to Place of Residence of Mother, 1930-32; Special Report on Mortality in Canada, 1921-32.

PRODUCTION—

I. ANNUAL SUMMARY OF PRODUCTION.

Including and differentiating gross and net—(1) Primary Production (agriculture, fishing, furs, forestry and mining) and (2) Secondary Production, or General Manufactures and Construction.

II. AGRICULTURE.

(1) Agricultural Production—

Monthly Bulletin of Agricultural Statistics; *Price \$1 per year*. (The official record of current statistical data relating to agriculture. Contains reports on agricultural conditions, prices, weather, etc.—estimates of areas, yields, quality and value of field crops—value of farm lands—wages of farm help—number and values of farm live stock and poultry—statistics of fruit and floriculture—dairying—tobacco—hives and honey—maple syrup and sugar—clover and grass seed—miscellaneous crops—stocks of grain—annual summary of value of agricultural production—index numbers of agricultural prices, yields and values—international agricultural statistics.)

Advance Summaries of Agricultural Statistics.

Telegraphic Crop Reports: (Between June 1 and Sept. 1, weekly for the Prairie Provinces and every two weeks for the rest of Canada).

Agricultural Statistics by Counties and Crop Districts, 1922-24 and 1925-29.

Annual Statistics of Fruit and Floriculture.

Advance Summaries on Fruit Conditions, Yields, etc.

Handbook of Instructions to Crop Correspondents, and Summary of Annual Agricultural Statistics, 1931.

(See also Census of Agriculture under "Population".)

(2) Grain and Grain Products—

(a) Annual Report on the Grain Trade of Canada, *Price 50 cents*; (b) Preliminary Report on the Grain Trade of Canada, *Price 25 cents*; (c) Monthly Review of the Wheat Situation, *Price \$1 per year*; (d) Canadian Grain Statistics—(Weekly report on grain supplies and movements); (e)

PRODUCTION—continued.

II. AGRICULTURE—concluded.

Canadian Milling Statistics—(Monthly); (f) List of Mills with Capacity—(Latest issue, 1934); (g) The Grain Situation in the Argentine—(Monthly); (h) The Production and Distribution of Canadian Grains and Seeds—(1) Barley, (2) Oats, (3) Rye, (4) Flaxseed.

(3) *Live Stock and Animal Products—*

(a) Annual Report on Live-Stock and Animal Products Statistics, *Price 25 cents*; (b) Monthly Reports on Stocks in Cold Storage (Advance, preliminary and final); (c) Monthly Estimates of Creamery Butter Production, by Provinces; (d) Annual Estimates of the Consumption of Meats, Butter, Cheese, Eggs and Poultry in Canada.

(4) *Other—*

Monthly Report on Raw and Refined Sugar. (Visible supply, meltings, shipments, exports and imports.)

III. FURS.

Annual Report on Fur Farms. *Price 25 cents.*

Advance Bulletin of Statistics of the Production of Raw Furs.

Annual Bulletin on the Production of Raw Furs (comprising the pelts taken by trappers and those sold from fur farms).

IV. FISHERIES.

Annual Report of Fisheries Statistics. *Price 35 cents.*

Advance Bulletins of Fish Caught and Marketed, by Provinces.

V. FORESTRY.

Annual Summary of the Value, etc., of Forest Production: (Includes operations in the woods for saw-mills, shingle mills, pulp and paper mills, etc., production of mining timber, production of poles and cross ties, and farm production of firewood, posts, etc.).

[See also Reports on Manufactures of Forestry Products listed under "Manufactures", Section VII, Subsection (5).]

VI. MINERAL PRODUCTION: (MINING AND METALLURGY).

(1) *General—*

(a) Annual Report on the Mineral Production of Canada, *Price 50 cents*; (b) Preliminary Reports (semi-annual) on the Mineral Production of Canada; (c) Monthly Reports on Leading Minerals; (d) Preliminary Estimate of Canada's Mineral Production.

(2) *Coal—*

(a) Annual Report on Coal Statistics for Canada, *Price 25 cents*; (b) Monthly Summary Report on Coal and Coke Statistics for Canada; (c) Quarterly Report on Coal and Coke Statistics for Canada, *Price 50 cents per year.*

(3) *Annual Bulletins on Mining—*

Metals—The Gold-Mining Industry in Canada: (includes alluvial gold mining, auriferous quartz mining, copper-gold-silver mining, and tables showing Canadian and world production of gold). The Silver-Mining Industry in Canada: (includes silver-cobalt-arsenic mining, silver-lead-zinc mining, and tables showing Canadian and world production of arsenic, cobalt, lead, silver, and zinc). The Nickel-Copper Mining, Smelting and Refining Industry: (includes Canadian and world production of nickel). The Copper-Mining Industry: (includes Canadian and world production of copper). Metals of the Platinum Group. The Production of Miscellaneous Metals: (includes antimony, beryl, bismuth, cadmium, chromite, lithium, manganese, mercury, molybdenite, radium, selenium, tin, titanium, tungsten). The Non-Ferrous Smelting and Refining Industry.

Non-Metals—Abrasives; Asbestos; Feldspar and Quartz; Gypsum; Iron Oxide; Mica; Natural Gas; Petroleum; Salt; Talc and Soapstone; Miscellaneous Non-metallic Minerals (includes

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PRODUCTION—continued.

VI. MINERAL PRODUCTION: (MINING AND METALLURGY)—concluded.

actinolite, barytes, bituminous sands, fluorspar, graphite, magnesian-dolomite, magnesium sulphate, bog manganese, mineral waters, peat, phosphate, silica brick, sodium carbonate, sodium sulphate, sulphur—pyrites).

Structural Materials—Cement; Clay and Clay Products; Lime; Sand and Gravel; Stone.

[See also Reports on Iron and Steel and their Products, Manufactures of Non-Ferrous Metals, and Chemicals and Allied Products, listed under "Manufactures", Section VII, Subsections (6), (7), (8) and (9).]

VII. MANUFACTURES.

- (1) *General*—General Report on the Manufacturing Industries of Canada, *Price 25 cents*. Geographical Distribution of the Manufacturing Industries of Canada, *Price 20 cents*. Also Reports for the Provinces and Leading Cities; Alphabetical List of Products (annual report); Quantity of Manufacturing Production in Canada, 1923-29; Consumption of Luxuries (annual report).
- (2) *Manufactures of Vegetable Products*—General Report of Manufactures of Vegetable Products, *Price 50 cents*. Annual Bulletins as follows: (a) Coffee, Tea, Spices and Miscellaneous Foods; (b) Fruit and Vegetable Preparation (including canning, evaporating and preserving, and pickles, sauces, vinegar and cider); (c) Flour and Grist-Mill Products; (d) Bread and Other Bakery Products; (e) Biscuits and Confectionery, including Cocoa and Chocolate; (f) Macaroni and Vermicelli; (g) Liquors, Distilled; (h) Liquors, Malt; (i) Liquors, Vinous; (j) Rubber Goods and Rubber Boots and Shoes; (k) Prepared Breakfast Foods; (l) Sugar Refineries; (m) Tobacco Products; (n) Linseed and Soya Bean Oil; (o) The Canned Foods Industry; (p) Ice Cream; (q) Pack of Fruits and Vegetables (preliminary); (r) Barley and Its Production; (s) Mixed Feed Trade in Canada; (t) Stocks of Fruits and Vegetables on hand; (u) Stocks of Unmanufactured Tobacco on Hand.
- (3) *Animal Products and Their Manufactures*—Annual Report as follows: The Dairy Factory Industry, *Price 25 cents*. Annual Bulletins: (a) Slaughtering and Meat Packing and Sausage and Sausage Casings; (b) Leather Tanneries; (c) Miscellaneous Leather Goods, Leather Belting, Boot and Shoe Findings, Leather; (d) Leather Boots and Shoes; (e) Leather Gloves and Mitts; (f) Fur Goods, Fur Dressing. Monthly Bulletin on Boot and Shoe Production. Monthly Bulletin on Concentrated Milk Products.
[See also Reports on Live Stock, etc., listed under "Agriculture".]
- (4) *Textile and Allied Industries*—General Report on the Textile Industries of Canada, *Price 50 cents*. Annual Bulletins as follows: (a) Cotton Textiles (cloth, yarn, thread and waste); (b) Woollen Textiles (cloth, yarn, waste, carpets, etc., and woollen goods, n.e.s.); (c) The Silk Industry; (d) Clothing, Men's, Factory; (e) Clothing, Women's, Factory; (f) Hats and Caps; (g) Hosiery and Knitted Goods; (h) Men's Furnishings, n.e.s.; (i) Oiled Clothing and Waterproofs; (j) Cordage, Rope and Twine; (k) Corsets; (l) Cotton and Jute Bags; (m) Dyeing, Cleaning and Laundry Work; (n) Dyeing and Finishing of Textiles; (o) Awnings, Tents and Sails; (p) Production and Consumption of Raw Wool in Canada, 1931; (q) Consumption of Wool, Tops and yarns, 1932.
- (5) *Manufactures of Forestry Products*—Annual Reports, *Price 25 cents each*: (a) The Lumber Industry; (b) The Pulp and Paper Industry; (c) Wood-Using Industries; (d) Paper-Using Industries. Annual Bulletins: (a) The Lumber Industry; (b) Lumber Distribution in Canada and the United States (biennial); (c) The Pulp and Paper Industry; (d) Planing Mills, Sash and Door Factories; (e) Hardwood Flooring; (f) Furniture; (g) Boxes, Baskets and Crates; (h) Carriages, Wagons and Materials; (i) Cooperage; (j) Coffins and Caskets; (k) Sporting Goods; (l) Boat Building; (m) Lasts, Trees and Shoe Findings; (n) Handles, Spools and Woodturning; (o) Wooden-ware; (p) Excelsior; (q) Miscellaneous Wood-Using Industries; (r) Printing and Publishing; (s) Printing and Bookbinding; (t) Lithographing; (u) Engraving, Electrotyping and Stereotyping; (v) Trade Composition; (w) Paper Boxes and Bags; (x) Blueprinting; (y) Roofing Paper; (z) Miscellaneous Paper Goods. The Printing Trades [combining (r), (s), (t), (u), (v) and (x)]. Monthly Bull tins: (a) Asphalt Roofing; (b) Rigid Insulating Board.

PRODUCTION—concluded.

VII. MANUFACTURES—concluded.

- (6) *Iron and Steel and Their Products*—Biennial Report, *Price 25 cents*. Annual Bulletins as follows: Preliminary Summary on the Iron and Steel Industry—(a) Primary Iron and Steel; (b) Castings and Forgings; (c) Boilers, Tanks and Engines; (d) Agricultural Implements; (e) Machinery; (f) Automobiles; (g) Automobile Supplies; (h) Railway Rolling Stock; (i) Wire and Wire Goods; (j) Sheet Metal Products; (k) Hardware and Tools; (l) Bridge Building and Structural Steel; (m) Miscellaneous Iron and Steel Products. Commodity Bulletins on the production of pig iron; steel; washing machines; cream separators; warm air furnaces; galvanized sheets; wire nails; wire rope and cable; steel wire; wire fencing; stoves, etc. Monthly Reports: (a) Iron and Steel; (b) Automobile Statistics.
- (7) *Manufactures of Non-Ferrous Metals*—Biennial Report, *Price 25 cents*. Annual Bulletins as follows: Preliminary Summary on Manufactures of Non-Ferrous Metals—(a) Aluminium Products; (b) Brass and Copper Products; (c) Lead, Tin and Zinc Products; (d) Jewellery and Silverware; (e) Electrical Apparatus and Supplies; (f) Miscellaneous Non-Ferrous Metal Goods. Quarterly Reports on production and sales of radio sets and sales of storage batteries. Commodity Bulletins on the production of batteries; silverware; vacuum cleaners; electric motors and generators; electric transformers; incandescent lamps, etc.
- (8) *Manufactures of the Non-Metallic Minerals*—Biennial Report, *Price 25 cents*. Annual Bulletins as follows: Preliminary Summary on Manufactures of Non-Metallic Minerals—(a) Aerated Waters; (b) Asbestos Products; (c) Cement; (d) Cement Products; (e) Coke and Gas; (f) Glass (blown, cut and ornamental, etc.); (g) Lime; (h) Petroleum Products; (i) Products from Domestic Clays; (j) Products from Imported Clays; (k) Salt; (l) Sand-Lime Brick; (m) Dressed Stone; (n) Artificial Abrasives and Abrasive Products; (o) Miscellaneous Non-Metallic Mineral Products (including carbon electrodes—gypsum products—mica products—non-metallic minerals, n.e.s.). Also Special Report on the consumption of coke in Canada. Monthly Report on Coke Statistics.
- (9) *Chemicals and Allied Products*—Biennial Report, *Price 25 cents*. Annual Bulletins as follows: Preliminary Summary on Chemicals and Allied Products—(a) Coal Tar Distillation; (b) Acids, Alkalies and Salts; (c) Compressed Gases; (d) Explosives, Ammunition and Fireworks; (e) Fertilizers; (f) Medicinal and Pharmaceutical Preparations; (g) Paints, Pigments and Varnishes; (h) Soaps, Cleaning Preparations and Washing Compounds; (i) Toilet Preparations; (j) Inks; (k) Adhesives; (l) Polishes and Dressings; (m) Wood Distillation; (n) Miscellaneous Chemical Products, (including boiler compounds—cellulose products—insecticides—sweeping compounds—disinfectants—matches—dyes and colours—chemical products, n.e.s.). Special Report on the Fertilizer Trade in Canada. Commodity Bulletins on Sulphuric Acid, Ammonium Sulphate, etc. Special Report—Directory of Chemical Industries in Canada, as of July 1, 1932. Special Report on the Consumption of Chemicals in Municipal Waterworks in Canada, 1931 and 1932.
- (10) *Miscellaneous Manufactures*—General Report. Annual Bulletins as follows: (a) Brooms, Brushes and Mops; (b) Musical Instruments (including pianos, organs and phonographs) and Musical Instrument Materials and Parts; (c) Buttons; (d) Bed Springs and Mattresses.

NOTE.—For statistics of water power and central electric stations, see under heading “Public Utilities”.

VIII. CONSTRUCTION—

Building Permits—Monthly and Annual Record.

EXTERNAL TRADE (IMPORTS AND EXPORTS)—

- (1) Annual Report of the Trade of Canada, for the fiscal year ended Mar. 31 (showing summary historical tables, analyses of current trends, detailed tables by items, group analyses according to component material, origin and degree of manufacture, and purpose, and comparisons of the volume of trade). *Price \$3*.

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EXTERNAL TRADE (IMPORTS AND EXPORTS)—*concluded.*

- (2) Condensed Preliminary Report of the Trade of Canada, for the fiscal year ended Mar. 31. *Price 25 cents.*
- (3) Annual Report of the Trade of Canada for the calendar year. *Price 50 cents.* (Free to subscribers to Quarterly Trade Report.)
- (4) Review of Canada's Foreign Trade during the calendar year.
- (5) Quarterly Report of the Trade of Canada (showing statistics of imports and exports by months and cumulative quarters). *Price \$2 per year.*
- (6) Monthly Summary of the Trade of Canada (for latest month and latest 12 months). *Price \$1 per year.*
- (7) Monthly Bulletins on Trade Statistics as follows: (a) Abstract of Imports, Exports, and Duty Collected (by latest month, accrued period, and latest 12 months); (b) Summary of Canada's Imports (for latest month); (c) Summary of Canada's Exports (for latest month); (d) Canada's Imports from Principal Countries (for latest month and accrued period); (e) Canada's Domestic Exports to Principal Countries (for latest month and accrued period).
- (8) Monthly Commodity Bulletins: (a) Imports and Exports of Asbestos; (b) Imports and Exports of Coffee and Tea; (c) Imports of Farm Implements and Machinery; (d) Exports of Farm Implements and Machinery; (e) Imports and Exports of Fertilizers; (f) Imports and Exports of Footwear (except rubber); (g) Exports of Grain and Flour; (h) Imports and Exports of Hides and Skins; (i) Imports of Lumber; (j) Exports of Lumber; (k) Imports of Meats, Lard and Sausage Casings; (l) Exports of Meats, Lard and Sausage Casings; (m) Imports of Milk, Milk Products and Eggs; (n) Exports of Milk, Milk Products and Eggs; (o) Imports of Non-Ferrous Metals and Smelter Products; (p) Exports of Non-Ferrous Metals and Smelter Products; (q) Imports of Paints and Varnishes; (r) Exports of Paints and Varnishes; (s) Imports of Petroleum and Products; (t) Exports of Petroleum and Products; (u) Imports and Exports of Pipes, Tubes and Fittings; (v) Imports of Pulpwood, Pulp and Paper; (w) Exports of Pulpwood, Pulp and Paper; (x) Imports of Rubber and Products; (y) Exports of Rubber and Products; (z) Imports of Sheet Metal Products; (aa) Imports and Exports of Vegetable Oils; (bb) Imports of Vehicles (of iron). *Price \$1 per year for imports and exports of one commodity; \$5 per year for all the above commodity bulletins.*
- (9) Special Trade Reports: (a) Trade of Canada with Pacific Countries (1932); (b) Canada-Belgium Trade, 1933; (c) Canada's Imports of Commodities not produced in Canada, 1929-1933; (d) Canada-Austria Trade, 1934; (e) Canada-Germany Trade, 1934.

INTERNAL TRADE—

1. RETAIL AND WHOLESALE TRADE (See Vols. X and XI under *Report of the Seventh Census*, p. 78):

Census of Merchandising and Service Establishments, 1931:—

Statistics of Retail and Wholesale Trade in 1930.

Preliminary Bulletins (mimeographed)—(a) Retail Trade of cities with a population of 10,000 and over, showing number of establishments, kinds of business, types of operation, employees, wages, sales, etc.; (b) Wholesale Trade of cities with a population of 20,000 and over.

Final Reports (mimeographed) —(a) Retail Merchandise Trade in Canada; (b) Retail Services in Canada; (c) Wholesale Trade in Canada; (d) Summary of Retail Facts; Credit and Commodity Sales; Size of Business; Operating Expenses by Provinces; (e) Retail Sales by Commodities; (f) Mail Order Sales; (g) Food Retailing; (h) Drug Retailing; (i) Retail Trade in Rural and Urban Areas; (j) Wholesale Trade by Provinces; (k) Operating Results of Wholesale Establishments, Showing Operating Expenses, Size of Business, Number of Units, etc.; (l) Commodity Sales by Wholesale Establishments; (m) Chain Stores, Food Chains, Variety Chains, Drug Chains, Filling Station Chains, Lumber and Building Material Chains; (n) Hotel Operations, by Provinces; (o) Hotel Operations in Canada; (p) Co-operative Marketing and Purchasing Associations; (q) Motor-Vehicle Transportation; (r) Distribution of Sales of Coal Mines; (s) Distribution of Sales of Manufacturing Establishments.

INTERNAL TRADE—concluded.

1 RETAIL AND WHOLESALE TRADE—concluded.

Final Reports (Printed)—Retail Trade by Provinces, showing number of establishments, kinds of business, types of operation, full-time and part-time employees and wages, operating expenses, size of business, credit sales, forms of organization, capital invested, and sales by commodities; details for cities with populations of 30,000 and over by kinds of business and types of operation, and by kinds of business for counties or census divisions and incorporated places with populations of 1,000 and over. Reports now available for Nova Scotia, 25 cents; Ontario, 50 cents; Quebec, 50 cents; reports for other provinces, summary for Canada and wholesale trade for Canada and the provinces in process of compilation.

Annual Reports on Retail and Wholesale Trade—Reports for 1933 as follows: (a) Chain Stores; (b) Retail Merchandise Trade by Provinces and for Canada; (c) Motion Picture Statistics; (d) Wholesale Trade in Canada and the Provinces.

Monthly Reports—Changes in the Value of Retail Sales; New Motor Vehicle Sales for Canada and the Provinces; Financing of Automobile Sales.

2. PRICES STATISTICS.

Annual Reports:—

1913-1933 Report on Prices and Price Indexes in Canada, in the British Empire, and in Foreign Countries (dealing with exchange and currency, security prices—common stocks, preferred stocks, mining stocks—bond yields, U.S. common stocks, prices and index numbers of street car rates, hospital charges, manufactured and fuel gas, electric light rates, telephone rates—and import and export valuations). Price 50 cents. Preliminary Summary of Price Movements, 1934.

Monthly Reports:—

Index Numbers of Wholesale and Retail Prices in Canada, British Empire and Foreign Countries—Security Prices—Exchange Rates.

Weekly Reports:—

Index Numbers of Wholesale Prices; Index Numbers of Common Stock Prices; Index Numbers of Mining Stock Prices.

Special Reports:—

Index Numbers of Wholesale Prices of Canadian Farm Products, 1890-1933 (with historical tables).

3. CAPITAL MOVEMENTS.

Annual Records and Estimates of Capital Investments by Foreigners in Canada and of Canadian Investments in Foreign Countries.

4. RECORDS OF BRANCH PLANT DEVELOPMENT IN CANADA.

Lists of New Concerns Locating in Canada in Recent Years. Bulletin on Branch and Subsidiary Industries in Canada.

5. BALANCE OF INTERNATIONAL PAYMENTS.

Compilation of Canada's Annual Balance of Payments. Estimation of the Invisible Items in Canada's Trade Balance (Receipts and Payments for Interest, Freight, Insurance, Non-Commercial Remittances, Government Expenditures, Capital of Immigrants and Emigrants, etc.).

TRANSPORTATION, COMMUNICATIONS AND PUBLIC UTILITIES—

1. *Railways and Tramways.*—ANNUAL REPORTS: (a) Railway Statistics. Price 50 cents; (b) Electric Railway Statistics. Price 25 cents; (c) Location of Railway Mileages; (d) Summary of Monthly Railway Traffic Report. MONTHLY REPORTS: (a) Railway Revenues, Expenses, Incomes and Operating Statistics; (b) Freight Traffic of Railways. WEEKLY REPORTS: Car Loadings of Revenue Freight.

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TRANSPORTATION, COMMUNICATIONS AND PUBLIC UTILITIES—*concluded.*

2. *Express*.—Annual Report on Express Statistics.
3. *Telegraphs*.—Annual Report on Telegraph Statistics.
4. *Telephones*.—Annual Report on Telephone Statistics.
5. *Water Transportation*.—(a) Annual Report on Canal Statistics. *Price 25 cents*; (b) Monthly Report on Canal Statistics.
6. *Electrical Stations*.—(a) Annual Report on Central Electric Stations in Canada; (b) Report on Index Numbers of Electric Light Rates; (c) Report on use of Electric Energy in Industries; (d) Monthly Report on Electric Energy Generated.
7. *Motor Vehicles*.—(a) Annual Report on Motor Vehicle Registrations; (b) Highways—Annual Report on Highway Mileage Open for Traffic, Construction and Expenditures on Construction and Maintenance.

FINANCE—

PROVINCIAL PUBLIC FINANCE.

1. *Financial Statistics of Provincial Governments*.—
(a) 1921 to 1926. (1923 and 1924 out of print.) (b) 1927 to 1931. Special Summary Statements. (Out of print.) (c) 1927 to 1929. Special analysis for Statistical Conference. (Out of print.) (d) 1932 and 1933. (e) Bonded Indebtedness of Provinces. Special analysis, 1916 to 1931.

MUNICIPAL FINANCE.

1. *Statistics of Cities and Towns*.—
(a) Urban Municipalities Having a Population of 10,000 and Over, 1919 and 1920. (b) 1925 to 1932. (1925 and 1928 out of print.) (c) Urban Municipalities Having Populations of 3,000 to 10,000, 1919. (d) Urban Municipalities Having Populations of 1,000 to 3,000, 1920. (e) Urban Municipalities Having Populations of 5,000 and Over, and 1,000 to 5,000, 1922.
2. *Assessment Valuations. Analysis by Classes of Municipalities*.—
(a) 1919 to 1923. (b) 1924 to 1932.
3. *Bonded Indebtedness by Classes of Urban and Rural Municipalities*.—
(a) 1919 to 1932. (1919-23 out of print.)

CIVIL SERVICE STATISTICS OF THE DOMINION GOVERNMENT.

- (a) Numbers of Personnel and Salary Expenditure for the Month of January, 1912-1924. (Special Report—out of print.) (b) Numbers of Personnel and Salary Expenditures by Months, *Price 25 cents*—(1) 1925-1931. (2) 1932-1934.

JUSTICE—

1. *Criminal Statistics*.—Annual Report. *Price 50 cents*. (Covering convictions, sentences, prison statistics, police statistics, pardons, commutations and executions.)
2. *Juvenile Delinquency*.—Annual Bulletin. *Price 10 cents*.

EDUCATION—

- (1) Annual Survey of Education in Canada. (Published yearly since 1921.) Includes the following:
(a) Provincially-controlled schools; (b) Universities and colleges; (c) Private schools; (d) Schools for Indians; (e) Directory of educational organizations, societies and periodicals, of provincial or Dominion scope; (f) Bibliography of Canadian studies in education, since 1929.
- (2) Survey of Canadian Libraries. (Biennial, 1931, 1933.)
- (3) Cost of Education. (A series of bulletins, 1934.)

EDUCATION—concluded

- (4) Civic Playgrounds, 1934: School Playgrounds in Canadian Cities, 1934.
- (5) Illiteracy and School Attendance in Canada. (A study of the Census of 1921 with supplementary data. Under revision on basis of the Census of 1931.)
- (6) Report of Dominion-Provincial Conference on Education Statistics. (Held October, 1920.)

GENERAL—

- (1) *National Wealth and Income*.—Estimates of the National Wealth of Canada, by Provinces, Industries, etc.: Income Assessed for Income War Tax: The National Income of Canada.
- (2) *Employment*.—Monthly and Annual Reports on Employment. (With Index Numbers of Employment by Economic Areas, Cities and Industries.)
- (3) *Commercial Failures*.—Monthly and Annual Reports.
- (4) *Bank Debits*.—Monthly and Annual Reports of Bank Debits to Individual Accounts at the Clearing-House Centres of Canada.
- (5) *Business Statistics*.—The Monthly Review of Business Statistics, *Price \$1 per year*—A statistical summary with charts and text, of current economic conditions in Canada. Special Supplements—Twelve Years of the Economic Statistics of Canada, 1919-30; Monthly Indexes of the Physical Volume of Business in Canada, 1919-32; Original Monthly Statistics of Chief Economic Importance, 1919-33, *Price 25 cents*; Business Conditions in Canada in Elapsed Months of Current Year. (Monthly.)
- (6) *Divorce*.—Annual Report.
- (7) *Liquor Control*.—Annual Report on the Control and Sale of Liquor.
- (8) *Tourist Trade*.—Annual Report.
- (9) *The Maritime Provinces in Their Relation to the National Economy of Canada*.—A statistical study of their social and economic condition since Confederation.
- (10) *The Prairie Provinces in Their Relation to the National Economy of Canada*.—A statistical study of their social and economic condition in the twentieth century.
- (11) *The Canada Year Book*.—The official statistical annual of the physiography, resources, history, institutions and social and economic conditions of the Dominion, with a statistical summary of the progress of Canada, maps, diagrams, etc. *Price \$1.50*.
Contents: I. Physical Characteristics of Canada (geographical features; geological formation; seismology; flora; fauna; natural resources; climate and meteorology). II. History and Chronology. III. Constitution and Government (constitution and general government of Canada; provincial and local government in Canada; parliamentary representation in Canada). IV. Population (growth and distribution). V. Vital Statistics. VI. Immigration. VII. Survey of Production. VIII. Agriculture. IX. Forestry. X. Fur trade. XI. Fisheries. XII. Mines and Minerals. XIII. Water Power. XIV. Manufactures. XV. Construction. XVI. External Trade. XVII. Internal Trade. XVIII. Transportation and Communications (government control over transportation and communications; steam railways; electric railways; express companies; roads and highways; motor vehicles; air navigation; canals; shipping and navigation; telegraphs; telephones; radio; post office). XIX. Labour and Wages. XX. Prices. XXI. Public Finance (Dominion public finance; provincial public finance; municipal public finance; national wealth and income). XXII. Currency and Banking; Loan and Trust Companies. XXIII. Insurance (and Government annuities). XXIV. Commercial Failures. XXV. Education. XXVI. Public Health and Benevolence. XXVII. Judicial and Penitentiary Statistics. XXVIII. Miscellaneous Administration (public lands; national defence; public works, etc.). XXIX. Sources of Official Statistical and Other Information Relative to Canada. XXX. The Annual Register (Dominion legislation; principal events of the year; extracts from the *Canada Gazette*, re official appointments, commissions, etc.). Appendices.

(Issues of the Canada Year Book for 1921, 1924, 1926, 1930, 1931 and 1932 are available.)

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- (12) *Canada*.—The Official Handbook of Present Conditions and Recent Progress. (Published annually. Price 25 cents.)
- (13) *The Daily News Bulletin*.—(A mimeographed report summarizing the chief items of statistical importance in news-letter form and listing the reports issued each day by the Bureau of Statistics.) Price \$1.50 per year.
- (14) *The Weekly News Bulletin*.—(A mimeographed report summarizing the chief items of statistical importance in news-letter form and listing the reports issued each week by the Bureau of Statistics.) Price \$1 per year.

N.B.—The complete service of all publications issued by the Bureau (with the exception of news bulletins) may be obtained for a special rate of \$15 per annum.



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